



United States
Department of
Agriculture



Natural
Resources
Conservation
Service

In cooperation with
United States Department
of Agriculture, Forest
Service; South Carolina
Department of Natural
Resources, Land, Water
and Conservation Division;
and South Carolina
Agricultural Experiment
Station

Soil Survey of Newberry County, South Carolina



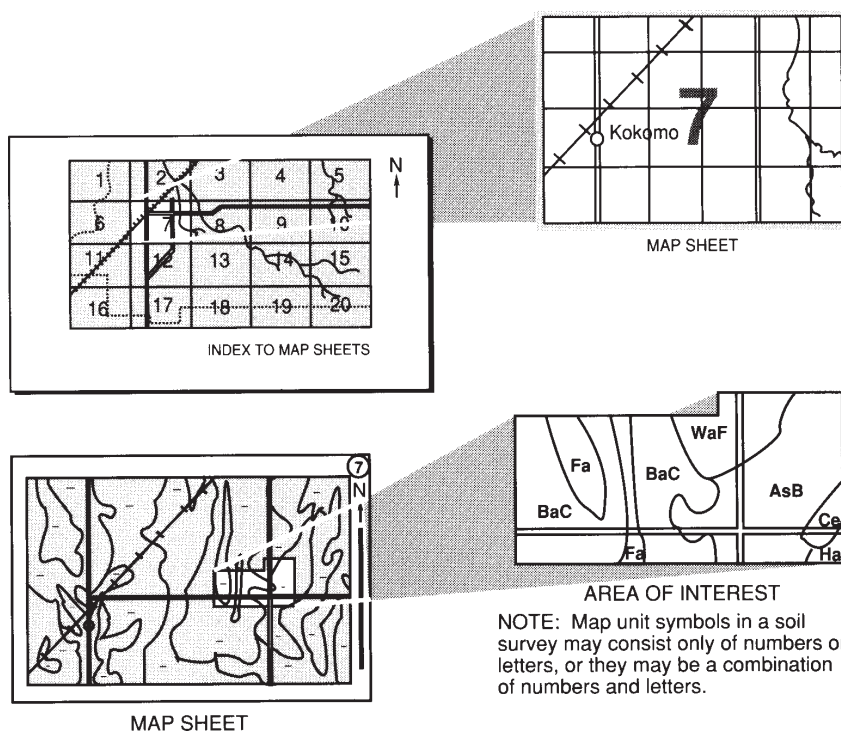
How To Use This Soil Survey

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and go to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Go to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service; the United States Department of Agriculture, Forest Service; the South Carolina Department of Natural Resources, Land, Water and Conservation Division; and the South Carolina Agricultural Experiment Station. The survey is part of the technical assistance furnished to the Newberry Soil and Water Conservation District.

Major fieldwork for this soil survey was completed in 2000. Soil names and descriptions were approved in 2001. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2001. The most current official data are available on the Internet at <http://websoilsurvey.nrcs.usda.gov>.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

Nondiscrimination Statement

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Cover Caption

Farm structure in an area of Hard Labor sandy loam, 2 to 6 percent slopes, located about 2 miles northwest of the town of Newberry.

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at <http://www.nrcs.usda.gov>.

Contents

Cover	i
How To Use This Soil Survey	iii
Contents	v
Foreword	xi
Introduction	1
General Nature of the Survey Area	1
How This Survey Was Made	4
Detailed Soil Map Units	7
Soils of Newberry County, Excluding the Sumter National Forest	8
AtB—Altavista sandy loam, 2 to 6 percent slopes	8
CaB—Callison silt loam, 2 to 6 percent slopes	10
CaC—Callison silt loam, 6 to 10 percent slopes	13
CcA—Cartecay sandy loam, 0 to 2 percent slopes, frequently flooded	15
CdB2—Cataula sandy loam, 2 to 6 percent slopes, moderately eroded	17
CdC2—Cataula sandy loam, 6 to 10 percent slopes, moderately eroded	19
CeB—Cecil sandy loam, 2 to 6 percent slopes	22
CfB2—Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	24
CfC2—Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	26
CfD2—Cecil sandy clay loam, 10 to 15 percent slopes, moderately eroded	28
CnA—Chenneby silt loam, 0 to 2 percent slopes, frequently flooded	31
CyA—Chenneby silt loam, 0 to 2 percent slopes, ponded	33
DaB2—Davidson sandy clay loam, 2 to 6 percent slopes, moderately eroded	35
GaB2—Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded	37
GaC2—Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded	39
GnC2—Gundy silt loam, 6 to 10 percent slopes, moderately eroded	41
GnD2—Gundy silt loam, 10 to 15 percent slopes, moderately eroded	43
GnE2—Gundy silt loam, 15 to 25 percent slopes, moderately eroded	46
HaB—Hard Labor sandy loam, 2 to 6 percent slopes	48
HaC—Hard Labor sandy loam, 6 to 10 percent slopes	51
HeB—Helena sandy loam, 2 to 6 percent slopes	53
HeC—Helena sandy loam, 6 to 10 percent slopes	55
HwB2—Hiwassee sandy loam, 2 to 6 percent slopes, moderately eroded	58
HwD2—Hiwassee sandy loam, 6 to 15 percent slopes, moderately eroded	60
McB—Mecklenburg sandy loam, 2 to 6 percent slopes	62
MeB2—Mecklenburg sandy clay loam, 2 to 6 percent slopes, moderately eroded	64
MeC2—Mecklenburg sandy clay loam, 6 to 10 percent slopes, moderately eroded	67
PaD2—Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded	69
PaE2—Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded	71
PaF2—Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded	73
PcC3—Pacolet clay loam, 6 to 10 percent slopes, severely eroded	76
PmB—Prosperity-Bush River-Helena complex, 2 to 6 percent slopes	78
PmC—Prosperity-Bush River-Helena complex, 6 to 10 percent slopes	81
RnC2—Rion sandy loam, 6 to 10 percent slopes, moderately eroded	84

RnD2—Rion sandy loam, 10 to 15 percent slopes, moderately eroded	87
RnE2—Rion sandy loam, 15 to 25 percent slopes, moderately eroded	89
RnF2—Rion sandy loam, 25 to 50 percent slopes, moderately eroded	92
SaB—Santuc loamy coarse sand, 2 to 6 percent slopes	94
SaC—Santuc loamy coarse sand, 6 to 10 percent slopes	96
SeB—Sedgefield sandy loam, 0 to 4 percent slopes	99
ShA—Shellbluff silty clay loam, 0 to 2 percent slopes, frequently flooded	101
ToA—Toccoa sandy loam, 0 to 3 percent slopes, frequently flooded	103
UcC2—Urban land-Cecil complex, 2 to 10 percent slopes, moderately eroded	105
UsC—Urban land-Cecil-Santuc complex, 2 to 10 percent slopes	107
WnB—Winnsboro sandy loam, 2 to 6 percent slopes	108
WoA—Worsham loam, 0 to 2 percent slopes	111
WwD2—Wynott-Wilkes complex, 10 to 15 percent slopes, moderately eroded	113
WwE2—Wynott-Wilkes complex, 15 to 25 percent slopes, moderately eroded	116
WyB2—Wynott-Winnsboro complex, 2 to 6 percent slopes, moderately eroded	119
WyC2—Wynott-Winnsboro complex, 6 to 10 percent slopes, moderately eroded	121
Soils of the Sumter National Forest in Newberry County	124
1B—Appling loamy sand, 2 to 7 percent slopes	124
1C—Appling loamy sand, 7 to 15 percent slopes	126
2B2—Appling sandy clay loam, 2 to 7 percent slopes, moderately eroded	127
2C2—Appling sandy clay loam, 7 to 15 percent slopes, moderately eroded	129
3B—Buncombe coarse sand, 0 to 3 percent slopes, rarely flooded	130
5A—Cartecay sandy loam, 0 to 2 percent slopes, occasionally flooded	132
7B—Cataula sandy loam, 2 to 7 percent slopes	133
8B2—Cataula sandy clay loam, 2 to 7 percent slopes, moderately eroded	135
8C2—Cataula sandy clay loam, 7 to 15 percent slopes, moderately eroded	136
10B—Cecil sandy loam, 2 to 7 percent slopes	138
10C—Cecil sandy loam, 7 to 15 percent slopes	139
11B2—Cecil sandy clay loam, 2 to 7 percent slopes, moderately eroded	141
11C2—Cecil sandy clay loam, 7 to 15 percent slopes, moderately eroded	142
11D2—Cecil sandy clay loam, 15 to 25 percent slopes, moderately eroded	144
12B3—Cecil clay loam, 2 to 7 percent slopes, severely eroded	145
12C3—Cecil clay loam, 7 to 15 percent slopes, severely eroded	147
13A—Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded	149
32B2—Hiwassee sandy clay loam, 2 to 7 percent slopes, moderately eroded	150
32C2—Hiwassee sandy clay loam, 7 to 15 percent slopes, moderately eroded	152
40B—Mecklenburg sandy loam, 2 to 7 percent slopes	154
41B2—Mecklenburg sandy clay loam, 2 to 7 percent slopes, moderately eroded	155

41C2—Mecklenburg sandy clay loam, 7 to 15 percent slopes, moderately eroded	157
41D2—Mecklenburg sandy clay loam, 15 to 25 percent slopes, moderately eroded	158
44C2—Pacolet sandy clay loam, 7 to 15 percent slopes, moderately eroded	160
44D2—Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded ...	161
44E2—Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded	163
45D3—Pacolet clay loam, 15 to 25 percent slopes, severely eroded	165
45E3—Pacolet clay loam, 25 to 50 percent slopes, severely eroded	166
47C2—Rion sandy loam, 7 to 15 percent slopes, moderately eroded	168
47D2—Rion sandy loam, 15 to 25 percent slopes, moderately eroded	170
47E2—Rion sandy loam, 25 to 50 percent slopes, moderately eroded	171
48D3—Rion sandy clay loam, 15 to 25 percent slopes, severely eroded	173
28B—Santuc loamy coarse sand, 2 to 7 percent slopes	175
28C—Santuc loamy coarse sand, 7 to 15 percent slopes	177
15A—Shellbluff silty clay loam, 0 to 2 percent slopes, occasionally flooded	178
49A—Toccoa sandy loam, 0 to 2 percent slopes, occasionally flooded	180
50E—Udorthents, 5 to 30 percent slopes	181
60C2—Wilkes sandy loam, 7 to 15 percent slopes, moderately eroded	183
60D2—Wilkes sandy loam, 15 to 25 percent slopes, moderately eroded	184
22B—Winnsboro sandy loam, 2 to 7 percent slopes	186
22C—Winnsboro sandy loam, 7 to 15 percent slopes	188
23B2—Winnsboro sandy clay loam, 2 to 7 percent slopes, moderately eroded	189
23C2—Winnsboro sandy clay loam, 7 to 15 percent slopes, moderately eroded	191
23D2—Winnsboro sandy clay loam, 15 to 25 percent slopes, moderately eroded	193
24D3—Winnsboro sandy clay loam, 15 to 25 slopes, severely eroded	194
Use and Management of the Soils	197
Interpretive Ratings	197
Rating Class Terms	197
Numerical Ratings	197
Crops and Pasture	198
Yields per Acre	198
Land Capability Classification	198
Prime Farmland and Other Important Farmlands	199
Agricultural Waste Management	200
Forestland Productivity and Management	203
Forestland Productivity	203
Forestland Management	203
Recreational Development	205
Wildlife Habitat	207
Hydric Soils	208

Engineering	210
Building Site Development	210
Sanitary Facilities	212
Construction Materials	214
Water Management	215
Soil Properties	217
Engineering Properties	217
Physical Soil Properties	218
Chemical Soil Properties	220
Water Features	220
Soil Features	222
Classification of the Soils	223
Soil Series and Their Morphology	223
Soils of Newberry County, Excluding the Sumter National Forest	224
Altavista Series	224
Bush River Series	225
Callison Series	227
Cartecay Series	229
Cataula Series	230
Cecil Series	232
Chenneby Series	234
Davidson Series	235
Georgeville Series	236
Gundy Series	238
Hard Labor Series	239
Helena Series	241
Hiwassee Series	243
Mecklenburg Series	244
Pacolet Series	246
Prosperity Series	247
Rion Series	249
Santuc Series	251
Sedgefield Series	253
Shellbluff Series	254
Toccoa Series	256
Wilkes Series	257
Winnsboro Series	259
Worsham Series	260
Wynott Series	262
Soils of the Sumter National Forest in Newberry County	264
Appling Series	264
Buncombe Series	265
Cartecay Series	266
Cataula Series	268
Cecil Series	270

Chenneby Series	271
Hiwassee Series	273
Mecklenburg Series	274
Pacolet Series	275
Rion Series	277
Santuc Series	279
Shellbluff Series	280
Toccoa Series	282
Wilkes Series	283
Winnsboro Series	284
Formation of the Soils	287
Factors of Soil Formation	287
Morphology of the Soils	289
Processes of Horizon Differentiation	290
References	291
Glossary	293
Tables	311
Table 1.—Temperature and Precipitation	312
Table 2.—Freeze Dates in Spring and Fall	313
Table 3.—Growing Season	313
Table 4.—Acreage and Proportionate Extent of the Soils	314
Table 5.—Land Capability and Yields per Acre of Crops and Pasture	316
Table 6.—Prime Farmland and Other Important Farmlands	321
Table 7.—Agricultural Waste Management, Part I	323
Table 7.—Agricultural Waste Management, Part II	336
Table 7.—Agricultural Waste Management, Part III	356
Table 8.—Forestland Productivity	376
Table 9.—Forestland Management, Part I	388
Table 9.—Forestland Management, Part II	397
Table 9.—Forestland Management, Part III	405
Table 9.—Forestland Management, Part IV	415
Table 9.—Forestland Management, Part V	423
Table 10.—Recreational Development, Part I	433
Table 10.—Recreational Development, Part II	443
Table 11.—Wildlife Habitat	451
Table 12.—Building Site Development, Part I	461
Table 12.—Building Site Development, Part II	470
Table 13.—Sanitary Facilities, Part I	482
Table 13.—Sanitary Facilities, Part II	495
Table 14.—Construction Materials, Part I	506
Table 14.—Construction Materials, Part II	515
Table 15.—Water Management	527
Table 16.—Engineering Properties	536
Table 17.—Physical Soil Properties	557
Table 18.—Chemical Soil Properties	572

Table 19.—Water Features	583
Table 20.—Soil Features	594
Table 21.—Taxonomic Classification of the Soils	598

Issued 2008

Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, foresters, and agronomists can use the surveys to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

T. Niles Glasgow
State Conservationist
Natural Resources Conservation Service

Soil Survey of Newberry County, South Carolina

By Emory Holsonback and Lance Brewington, Natural Resources Conservation Service

Fieldwork by Emory Holsonback, Lance Brewington, Tansel Hudson, Edward Herren, and Mark Mann, Natural Resources Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with
United States Department of Agriculture, Forest Service; South Carolina Department of Natural Resources, Land, Water and Conservation Division; and South Carolina Agricultural Experiment Station

NEWBERRY COUNTY is located in the northwestern part of South Carolina (fig. 1). Part of the Sumter National Forest lies within the boundaries of Newberry County. The national forestland was surveyed prior to and separate from the rest of the survey area, and the soils on this land are mapped differently than in the remainder of the survey area. The private land portion of Newberry County makes up about 561 square miles, or 359,080 acres, and the Sumter National Forest portion makes up about 87 square miles, or 55,420 acres. The survey area is bounded on the north by Union County, on the east by Fairfield County and Richland County, on the south by Lexington County and Saluda County, and on the west by Greenwood County and Laurens County. In 1998, the population of Newberry County was 34,462. Newberry, the county seat, had a population of 9,860 (23).

The first soil survey of Newberry County was published in 1918 and the second soil survey was published in 1960, both by the U.S. Department of Agriculture (14, 20). This survey updates the 1960 survey, provides more detailed maps on aerial photographs, and contains more interpretive information.

General Nature of the Survey Area

This section provides general information about the survey area. It describes history and development; land use; physiography, relief, and drainage; water supply; and climate.

History and Development

Newberry County was established in 1785. It is not known for certain from what the name Newberry was derived. One theory is that it was a fancy name used to describe the appearance of the countryside, which was beautiful like a new berry (9).

In the mid 18th century, settlers began to arrive in the area of present-day Newberry

Soil Survey of Newberry County, South Carolina

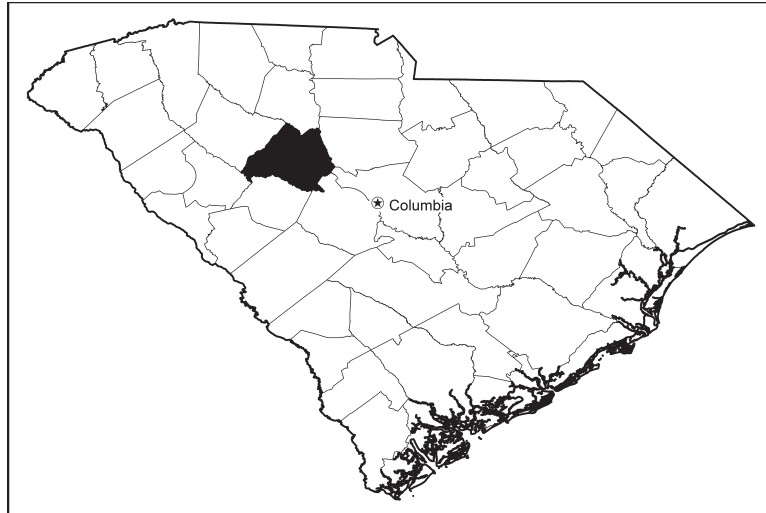


Figure 1.—Location of Newberry County in South Carolina.

County. The settlers were Scotch-Irish, English, and German immigrants who came to the region by overland trails from Pennsylvania, Maryland, Virginia, and North Carolina. The area had long been hunting grounds of the Cherokee. In 1747, a deed was signed whereby the Cherokee gave up their claims to this area (9).

In 1796, the introduction of one of Eli Whitney's new cotton gins to Newberry County showed farmers that money was to be made by planting cotton. By 1820, cotton was king in the county (10).

Toward the end of the 19th century, some effort was made to get away from the total dependence upon cotton. The first Guernseys were brought to South Carolina during this time, and poultry was beginning to be a significant economic factor. Cotton, however, continued to be the county's primary cash crop until World War II. Finally, after the boll weevil, the depression of 1921, the Great Depression of the 1930's, low prices, the exhaustion of the soil, competition from irrigated farms in the West, and rising costs of labor and production, cotton lost its foothold as the main cash crop in Newberry County (10).

Today, Newberry County is still primarily an agricultural county. It has exchanged its reliance upon cotton for dependence upon poultry and eggs, dairy and beef cattle, and timber and pulpwood (10).

Land Use

Newberry County is in the Southern Piedmont Major Land Resource Area (19). The soils generally are well suited to cropland and pasture. Many of the soils, however, have management concerns that need to be addressed in order to achieve consistently high yields. These concerns include soil erosion, low organic matter content, and low fertility. If resource management systems are implemented that address these and other natural resource concerns, good yields are attainable on these soils in most years.

The survey area is predominantly rural. Forestland, pastureland, and cropland are the major land uses in the county. Presently, more than 10,000 acres in Newberry County are in urban areas and rural transportation. Land is being converted to urban use at the rate of about 100 acres per year.

Physiography, Relief, and Drainage

Most of the soils in Newberry County are gently sloping or sloping, but areas near streams and drainageways are mainly moderately steep or steep. The soils on flood plains of rivers and small streams are nearly level and are subject to frequent flooding. Elevation ranges from 220 feet along the Broad River to 810 feet at the top of Little Mountain.

The Broad River and its tributaries drain the northern half of Newberry County. The larger tributaries include the Enoree River, the Tyger River, Hellers Creek, and Cannons Creek. The Saluda River and its tributaries drain the southern half of the county. The larger tributaries include the Little River, Beaverdam Creek, and the Bush River.

Water Supply

The most abundant surface water resources in Newberry County are the Broad River, the Saluda River, the Enoree River, the Tyger River, and the Bush River. Lake Murray, Lake Greenwood, and Parr Reservoir also are partially within the county.

Many watersheds supply perennial streams throughout the county. Water may flow only during wet periods in upper reaches of these watersheds. Most of the perennial streams are adjacent to flood plains. Except in dredged or other artificially altered areas, these streams frequently overflow their banks onto the flood plains during periods of heavy rains.

Many manmade ponds have been constructed along streams in the county. These ponds are used for watering livestock, recreational activities, municipal water supplies, and irrigation.

The county has numerous shallow ponds and wetland areas as a result of high beaver activity. These ponds and wetland areas are located along perennial streams.

Drilled or bored wells supply water throughout the county for domestic use and private water systems. Drilled wells commonly are more than 200 feet in depth. Water supplies from wells are usually adequate for domestic use; however, supply rates may be inconsistent, even in the same general area.

Climate

Climate data are provided in tables 1, 2, and 3. The data were recorded at Little Mountain, South Carolina, in the period 1961 to 1990 and at Bishopville, South Carolina, in the period 1971 to 2000. Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from the First Order station in Columbia, South Carolina.

In winter, the average temperature is 45.5 degrees F and the average daily minimum temperature is 35.1 degrees. The lowest temperature on record, which occurred on January 21, 1985, is -2 degrees. In summer, the average temperature is 78.5 degrees and the average daily maximum temperature is 89.0 degrees. The highest recorded temperature, which occurred on July 21, 1952, is 108 degrees.

Growing degree days are shown in table 1. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is 48.52 inches. Of this, 24.70 inches, or about 50 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 6.46

inches, recorded on August 18, 1986. Thunderstorms occur on about 53 days each year, and most occur between May and August.

The average seasonal snowfall is 2.9 inches. The greatest recorded snow depth at any one time was 10 inches, recorded on December 11, 1958. On the average, 2 days of the year have at least 1 inch of snow on the ground.

The average relative humidity in midafternoon is about 51 percent. Humidity is higher at night, and the average at dawn is about 87 percent. The sun shines 66 percent of the time possible in summer and 58 percent in winter. The prevailing wind is from the southwest for most of the year; during September and October it is from the northeast. Average windspeed is highest, 8 miles per hour, in March and April.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret

the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. The soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil

phase commonly indicates a feature that affects use or management. For example, Winnsboro sandy loam, 2 to 6 percent slopes, is a phase of the Winnsboro series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes. A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Prosperity-Bush River-Helena complex, 2 to 6 percent slopes, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. The Urban land part of Urban land-Cecil complex, 2 to 10 percent slopes, moderately eroded, is an example.

Table 4 lists the map units in this survey area. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils.

Soils of Newberry County, Excluding the Sumter National Forest

AtB—Altavista sandy loam, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Altavista and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 5 inches—yellowish brown sandy loam

Subsoil:

5 to 15 inches—yellowish brown sandy loam

15 to 36 inches—yellowish brown sandy clay loam that has light gray iron depletions

36 to 80 inches—light gray sandy clay loam that has brownish yellow masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Chenneby, Shellbluff, and Toccoa soils on flood plains
- Hiwassee soils in landform positions similar to those of the Altavista soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Gently sloping

Reaction: Very strongly acid to moderately acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Depth to water table: 1.5 to 2.5 feet

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Cropland and pasture

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—wetness and erodibility; wetland—deepness to water and seepage

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.

- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Wetness

Management measures and considerations:

- Surface drains and landscaping may be needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.

Engineering uses

Suitability: Moderately suited to dwellings without basements and local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Wetness and low strength

Management measures and considerations:

- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

CaB—Callison silt loam, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and gentle side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 300 acres

Composition

Callison and similar soils: 90 percent

Dissimilar soils: 10 percent

Typical Profile

Surface layer:

0 to 5 inches—light yellowish brown silt loam

Subsoil:

5 to 18 inches—brownish yellow silty clay loam

18 to 26 inches—brownish yellow silty clay loam that has very pale brown iron depletions and yellowish brown masses of oxidized iron

26 to 34 inches—light yellowish brown silty clay loam that has gray iron depletions and reddish yellow redoximorphic features

34 to 37 inches—gray silty clay that has yellowish brown and reddish yellow masses of oxidized iron

Underlying material:

37 to 45 inches—soft bedrock

45 inches—hard Carolina slate

Minor Components

Dissimilar:

- Few small areas of Georgeville soils in landform positions similar to those of the Callison soil
- Few small areas of Gundy soils on side slopes

Similar:

- Small areas of eroded soils
- Small areas of well drained soils that have more clay in the subsoil than the Callison soil
- Small areas of soils that have a less acid subsoil than the Callison soil
- Small areas of soils that have a yellowish red or red subsoil
- Small areas where the depth to soft bedrock is less than 20 inches or more than 40 inches

Soil Properties and Qualities

Depth class: Moderately deep

Drainage class: Moderately well drained

Slope class: Gently sloping

Reaction: Strongly acid or moderately acid in the A horizon, except where lime has been applied, and very strongly acid to moderately acid in the B horizon

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Moderately deep; soil easily penetrated by plant roots

Depth to soft bedrock: 20 to 40 inches

Runoff: Medium

Erosion hazard: Moderate

Depth to water table: 1.5 to 3.0 feet

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Woodland and pasture

Other uses: Cropland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, lower saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.

- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—wetness, erodibility, low saturated hydraulic conductivity, and bedrock; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails, camp areas, picnic areas, and playgrounds

Management concerns: Wetness and low saturated hydraulic conductivity

Management measures and considerations:

- Surface drains and landscaping may be needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.

Engineering uses

Suitability: Moderately suited to dwellings without basements; poorly suited to septic tank absorption fields and local roads and streets

Management concerns: Wetness, low saturated hydraulic conductivity, low strength, and bedrock

Management measures and considerations:

- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

CaC—Callison silt loam, 6 to 10 percent slopes

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 150 acres

Composition

Callison and similar soils: 90 percent

Dissimilar soils: 10 percent

Typical Profile

Surface layer:

0 to 5 inches—light yellowish brown silt loam

Subsoil:

5 to 18 inches—brownish yellow silty clay loam

18 to 26 inches—brownish yellow silty clay loam that has very pale brown iron depletions and yellowish brown masses of oxidized iron

26 to 34 inches—light yellowish brown silty clay loam that has gray iron depletions and reddish yellow masses of oxidized iron

34 to 37 inches—gray silty clay that has yellowish brown and reddish yellow masses of oxidized iron

Underlying material:

37 to 45 inches—soft bedrock

45 inches—hard Carolina slate

Minor Components

Dissimilar:

- Few small areas of Georgeville and Gundy soils in landform positions similar to those of the Callison soil

Similar:

- Small areas of soils that have been eroded
- Small areas of well drained soils that have more clay in the subsoil than the Callison soil
- Small areas of soils that have a less acid subsoil than the Callison soil
- Small areas where the subsoil is yellowish red or red
- Small areas where the depth to soft bedrock is less than 20 inches or more than 40 inches

Soil Properties and Qualities

Depth class: Moderately deep

Drainage class: Moderately well drained

Slope class: Sloping

Reaction: Strongly acid or moderately acid in the A horizon, except where lime has been applied, and very strongly acid to moderately acid in the B horizon

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Moderately deep; soil easily penetrated by plant roots

Depth to soft bedrock: 20 to 40 inches

Runoff: Rapid

Erosion hazard: Moderate

Depth to water table: 1.5 to 3.0 feet

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Woodland and pasture

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, lower saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—wetness, erodibility, low saturated hydraulic conductivity, and bedrock; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails, camp areas, and picnic areas; poorly suited to playgrounds

Management concerns: Wetness and low saturated hydraulic conductivity

Management measures and considerations:

- Surface drains and landscaping may be needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.

Engineering uses

Suitability: Moderately suited to dwellings without basements; poorly suited to septic tank absorption fields and local roads and streets

Management concerns: Wetness, low saturated hydraulic conductivity, low strength, bedrock, and slope

Management measures and considerations:

- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas that are wetter and are shallow to bedrock.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

CcA—Cartecay sandy loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform position: First bottoms along small to large streams

Size of areas: About 10 to 50 acres

Composition

Cartecay and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy loam

Underlying material:

4 to 14 inches—brown sandy loam that has grayish brown and pale brown iron depletions and strong brown masses of oxidized iron

14 to 21 inches—gray sandy loam that has strong brown masses of oxidized iron

21 to 35 inches—strong brown loamy sand that has gray iron depletions

35 to 48 inches—gray fine sandy loam that has strong brown masses of oxidized iron

48 to 80 inches—light yellowish brown coarse sandy loam that has gray iron depletions and strong brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Chenneby, Shellbluff, and Toccoa soils in landform positions similar to those of the Cartecay soil

Similar:

- Small areas of soils that have slopes of more than 2 percent
- Small areas of poorly drained soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Somewhat poorly drained

Slope class: Nearly level

Reaction: Strongly acid to slightly acid in the 10- to 40-inch control section; all pedons have pH of 5.5 or higher in some part

Saturated hydraulic conductivity: High

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Slow

Erosion hazard: Very slight

Flooding: Frequent

Depth to water table: 0.5 foot to 1.5 feet

Shrink-swell potential of substratum: Low

Land Use

Dominant uses: Woodland

Other uses: Cropland and pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Flooding and wetness

Management measures and considerations:

- Conservation practices that add organic matter to the soil are needed.
- Some type of drainage system is needed for cultivated crops.

Pasture and hayland

Suitability: Poorly suited

Management concerns: Flooding and wetness

Management measures and considerations:

- Protecting areas from flooding is generally not economically feasible.
- Drainage can be provided by maintaining open ditches and surface drains.
- Grazing should be delayed until the soil has drained sufficiently and is firm enough to withstand trampling by livestock.
- Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, flooding, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- The wetness is difficult to overcome, but it can be overcome to some extent by performing all logging operations and site preparation during dry periods.

- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to woodland wildlife habitat; moderately suited to openland and wetland wildlife habitat

Management concerns: Openland and woodland—wetness and flooding; wetland—seepage

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to picnic areas, paths and trails, camp areas, and playgrounds

Management concerns: Wetness and flooding

Management measures and considerations:

- Areas should not be used during episodes of flooding, and facilities and structures should be constructed to withstand brief periods of inundation.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Wetness and flooding

Management measures and considerations:

- Because of the difficulty and expense of reducing the flooding limitation, this soil is generally not used for dwellings or septic tank absorption fields.
- Using well compacted fill material as a road base may help to elevate roads above the level of flooding and overcome the wetness limitation.

CdB2—Cataula sandy loam, 2 to 6 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Cataula and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsoil:

2 to 5 inches—yellowish brown sandy loam

5 to 8 inches—yellowish red sandy clay loam

8 to 16 inches—red clay

16 to 33 inches—red clay that has very pale brown iron depletions and brownish yellow masses of oxidized iron

33 to 45 inches—red clay loam that has white iron depletions and yellow masses of oxidized iron

45 to 80 inches—red sandy clay loam that has reddish yellow masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Helena, Mecklenburg, Bush River, Prosperity, Santuc, Winnsboro, and Wynott soils in landform positions similar to those of the Cataula soil

Similar:

- Hard Labor soils in landform positions similar to those of the Cataula soil
- Small areas of noneroded soils
- Small areas of severely eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Gently sloping

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid in all other horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: High

Root zone: Very deep; soil not easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Depth to water table: 2.0 to 4.0 feet

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland and pasture

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion, root restriction, windthrow, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.

- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management concerns: Low saturated hydraulic conductivity

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Well suited to dwellings without basements; moderately suited to local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Wetness, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

CdC2—Cataula sandy loam, 6 to 10 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Cataula and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsoil:

2 to 5 inches—yellowish brown sandy loam

5 to 8 inches—yellowish red sandy clay loam

8 to 16 inches—red clay

16 to 33 inches—red clay that has very pale brown iron depletions and brownish yellow masses of oxidized iron

33 to 45 inches—red clay loam that has white iron depletions and yellow masses of oxidized iron

45 to 80 inches—red sandy clay loam that has reddish yellow masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Mecklenburg, Pacolet, Rion, Winnsboro, and Wynott soils in landform positions similar to those of the Cataula soil
- Few small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions

Similar:

- Hard Labor soils in landform positions similar to those of the Cataula soil
- Small areas of noneroded soils
- Small areas of severely eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Sloping

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid in all other horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: High

Root zone: Very deep; soil not easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Depth to water table: 2.0 to 4.0 feet

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland and pasture

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion, root restriction, windthrow, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Moderately suited to dwellings without basements and local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Wetness, low saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.

- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

CeB—Cecil sandy loam, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 400 acres

Composition

Cecil and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 6 inches—brown sandy loam

Subsoil:

6 to 18 inches—red clay

18 to 42 inches—red clay that has reddish yellow lithochromic mottles

42 to 80 inches—red clay loam

Minor Components

Dissimilar:

- Few small areas of Cataula, Hard Labor, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Cecil soil
- Few small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions

Similar:

- Davidson and Pacolet soils in landform positions similar to those of the Cecil soil
- Small areas of eroded soils
- Small areas of soils that have many mica flakes

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Very strongly acid to moderately acid in the A horizon, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons; the soil generally is moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to camp areas, picnic areas, and paths and trails; moderately suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Playgrounds should be constructed in nearly level areas.

Engineering uses

Suitability: Well suited to dwellings without basements; moderately suited to septic tank absorption fields and local roads and streets

Management concerns: Lower saturated hydraulic conductivity and low strength

Management measures and considerations:

- The lower saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

CfB2—Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 500 acres

Composition

Cecil and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 15 inches—red clay

15 to 38 inches—red clay that has strong brown lithochromic mottles

38 to 48 inches—red clay loam that has yellowish red and strong brown lithochromic mottles

48 to 80 inches—red sandy clay loam that has strong brown and very pale brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Cataula, Hard Labor, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Cecil soil
- Few small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions

Similar:

- Davidson and Pacolet soils in landform positions similar to those of the Cecil soil
- Small areas of noneroded soils
- Small areas of soils that have many mica flakes

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Very strongly acid to moderately acid in the A horizon, except where lime

has been applied, and very strongly acid or strongly acid in the B and C horizons; the soil generally is moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.

- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to camp areas, picnic areas, and paths and trails; moderately suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Well suited to dwellings without basements; moderately suited to septic tanks absorption fields and local roads and streets

Management concerns: Lower saturated hydraulic conductivity and low strength

Management measures and considerations:

- The lower saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

CfC2—Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 200 acres

Composition

Cecil and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 15 inches—red clay

15 to 38 inches—red clay that has strong brown lithochromic mottles

38 to 48 inches—red clay loam that has yellowish red and strong brown lithochromic mottles

48 to 80 inches—red sandy clay loam that has strong brown and very pale brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Cataula, Hard Labor, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Cecil soil
- Few small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions

Similar:

- Pacolet soils in landform positions similar to those of the Cecil soil

- Small areas of noneroded soils
- Small areas of soils that have many mica flakes
- Small areas of soils that are dark red

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Sloping

Reaction: Very strongly acid to moderately acid in the A horizon, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons; the soil generally is moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low

air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.

- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Moderately suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

CfD2—Cecil sandy clay loam, 10 to 15 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 50 acres

Composition

Cecil and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 15 inches—red clay

15 to 38 inches—red clay that has strong brown lithochromic mottles

38 to 48 inches—red clay loam that has yellowish red and strong brown lithochromic mottles

48 to 80 inches—red sandy clay loam that has strong brown and very pale brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Cataula, Hard Labor, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Cecil soil

Similar:

- Pacolet and Rion soils in landform positions similar to those of the Cecil soil
- Small areas of noneroded soils
- Small areas of soils that have many mica flakes
- Small areas of soils that are dark red

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Strongly sloping

Reaction: Very strongly acid to moderately acid in the A horizon, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons; the soil generally is moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Cropland and pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Moderately suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

CnA—Chenneby silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform position: First bottoms along medium to large streams

Size of areas: About 10 to 100 acres

Composition

Chenneby and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown silt loam

Subsoil:

4 to 9 inches—brown silt loam that has brown iron depletions

9 to 20 inches—dark yellowish brown silt loam that has pale brown iron depletions and yellowish brown masses of oxidized iron

20 to 41 inches—dark yellowish brown silty clay loam that has gray iron depletions and brown masses of oxidized iron

Underlying material:

41 to 80 inches—gray clay loam that has yellowish brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cartecay, Shellbluff, and Toccoa soils in landform positions similar to those of the Chenneby soil

Similar:

- Small areas of soils that have slopes of more than 2 percent
- Small areas of soils that are ponded

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Somewhat poorly drained

Slope class: Nearly level

Reaction: Strongly acid or moderately acid in the A horizon, except where lime has been applied, and very strongly acid to moderately acid in the B and C horizons

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Slow

Erosion hazard: Slight

Flooding: Frequent

Depth to water table: 1.0 foot to 2.5 feet

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland and pasture

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Flooding and wetness

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Flooding and wetness

Management measures and considerations:

- Protecting areas from flooding is generally not economically feasible.
- Drainage can be provided by maintaining open ditches and surface drains.
- Grazing should be delayed until the soil is drained sufficiently and is firm enough to withstand trampling by livestock.
- Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, flooding, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Temporary logging roads may require fill material to prevent extensive rutting and compaction.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to woodland wildlife habitat; moderately suited to openland and wetland wildlife habitat

Management concerns: Openland and woodland—flooding, wetness; wetland—seepage

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to picnic areas and paths and trails; poorly suited to camp areas and playgrounds

Management concerns: Flooding and wetness

Management measures and considerations:

- Areas should not be used during episodes of flooding, and facilities and structures should be constructed to withstand brief periods of inundation.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Flooding, wetness, and low strength

Management measures and considerations:

- Because of the difficulty and expense of reducing the flooding limitation, this soil generally is not used for dwellings or septic tank absorption fields.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

CyA—Chenneby silt loam, 0 to 2 percent slopes, ponded

Setting

Landform position: First bottoms along medium to large streams

Size of areas: About 10 to 50 acres

Composition

Chenneby and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—brown silt loam

Subsoil:

3 to 9 inches—dark yellowish brown silt loam

9 to 17 inches—dark yellowish brown silty clay loam that has pale brown iron depletions

17 to 27 inches—brown silty clay loam that has gray iron depletions

27 to 51 inches—yellowish brown silty clay loam that has light gray iron depletions and strong brown masses of oxidized iron

Underlying material:

51 to 80 inches—light brownish gray sandy loam that has dark yellowish brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cartecay, Shellbluff, and Toccoa soils in landform positions similar to those of the Chenneby soil

Similar:

- Small areas of soils that are not ponded

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Somewhat poorly drained

Slope class: Nearly level

Reaction: Strongly acid or moderately acid in the A horizon, except where lime has been applied, and very strongly acid to moderately acid in the B and C horizons

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Negligible

Flooding: Frequent; ponding generally is a result of beaver activity

Water table: 1.0 foot below the surface to 1.5 feet above

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Wetness, ponding, and flooding

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Ponding and wetness

Management measures and considerations:

- Drainage can be provided by maintaining open ditches and surface drains.
- Grazing should be delayed until the soil has drained sufficiently and is firm enough to withstand trampling by livestock.
- Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the pasture in good condition.

Woodland

Suitability: Poorly suited to loblolly pine and yellow-poplar

Management concerns: Wetness, ponding, flooding, and soil compaction

Management measures and considerations:

- This soil does not have the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Temporary logging roads may require fill material to prevent extensive rutting and compaction.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to woodland wildlife habitat; moderately suited to openland and wetland wildlife habitat

Management concerns: Openland and woodland—ponding and wetness; wetland—seepage

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, rabbit, and waterfowl.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Ponding and wetness

Management measures and considerations:

- Areas of this soil generally are not suited to recreational development.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Ponding, wetness, and low strength

Management measures and considerations:

- Because of the difficulty and expense of reducing the ponding limitation, this soil generally is not used for dwellings or septic tank absorption fields.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

DaB2—Davidson sandy clay loam, 2 to 6 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Davidson and similar soils: 90 percent

Dissimilar soils: 10 percent

Typical Profile

Surface layer:

0 to 4 inches—dark reddish brown sandy clay loam

Subsoil:

4 to 17 inches—dusky red clay

17 to 80 inches—dark red clay

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Davidson soil

Similar:

- Cecil soils in landform positions similar to those of the Davidson soil
- Hiwassee soils on high stream terraces
- Small areas of noneroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Very strongly acid to slightly acid in all horizons, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to camp areas, picnic areas, and paths and trails; moderately suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Well suited to dwellings without basements; moderately suited to septic tanks absorption fields and local roads and streets

Management concerns: Lower saturated hydraulic conductivity and low strength

Management measures and considerations:

- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

GaB2—Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 300 acres

Composition

Georgeville and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—yellowish red silty clay loam

Subsoil:

2 to 21 inches—red clay

21 to 41 inches—red clay that has strong brown lithochromic mottles

41 to 80 inches—red silty clay loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Callison, Gundy, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Georgeville soil

Similar:

- Cecil and Pacolet soils in landform positions similar to those of the Georgeville soil
- Small areas of soils that have soft bedrock at a depth of 40 to 60 inches
- Small areas of noneroded and severely eroded soils
- Small areas that have shallow to deep gullies

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid or strongly acid throughout the rest of the profile

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Cropland and pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to woodland wildlife habitat; moderately suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails, camp areas, and picnic areas; moderately suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Well suited to dwellings without basements; moderately suited to septic tank absorption fields and local roads and streets

Management concerns: Lower saturated hydraulic conductivity and low strength

Management measures and considerations:

- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

GaC2—Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 200 acres

Composition

Georgeville and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—yellowish red silty clay loam

Subsoil:

2 to 21 inches—red clay

21 to 41 inches—red clay that has strong brown lithochromic mottles

41 to 80 inches—red silty clay loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Callison, Gundy, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Georgeville soil

Similar:

- Cecil and Pacolet soils in landform positions similar to those of the Georgeville soil
- Small areas of soils that have soft bedrock at a depth of 40 to 60 inches
- Small areas of noneroded soils and severely eroded soils
- Small areas that have shallow to deep gullies

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Sloping

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid or strongly acid throughout the rest of the profile

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Cropland and pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

GnC2—Gundy silt loam, 6 to 10 percent slopes, moderately eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 75 acres

Composition

Gundy and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown silt loam

Subsoil:

4 to 20 inches—red clay

20 to 27 inches—red clay loam that has reddish yellow lithochromic mottles

27 to 32 inches—red channery clay loam that has reddish yellow lithochromic mottles

Underlying material:

32 to 52 inches—yellowish red very channery clay loam that has brownish yellow lithochromic mottles

52 to 80 inches—soft bedrock

Minor Components

Dissimilar:

- Few small areas of Callison, Georgeville, and Mecklenburg soils in landform positions similar to those of the Gundy soil

Similar:

- Few small areas of noneroded soils
- Small areas that have shallow to deep gullies
- Small areas of well drained and moderately well drained soils that have less clay in the subsoil than the Gundy soil
- Small areas of soils that have channery saprolite within a depth of 20 inches and have 35 percent or more coarse fragments
- Small areas of soils that have a more acid subsoil than the Gundy soil

Soil Properties and Qualities

Depth class: Deep or very deep

Drainage class: Well drained

Slope class: Sloping

Reaction: Strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Deep or very deep; soil easily penetrated by plant roots

Depth to soft bedrock: 40 to more than 60 inches

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.

- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements and septic tank absorption fields; poorly suited to local roads and streets

Management concerns: Shrink-swell potential, lower saturated hydraulic conductivity, bedrock, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell potential.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

GnD2—Gundy silt loam, 10 to 15 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 75 acres

Composition

Gundy and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown silt loam

Subsoil:

4 to 20 inches—red clay

20 to 27 inches—red clay loam that has reddish yellow lithochromic mottles

27 to 32 inches—red channery clay loam that has reddish yellow lithochromic mottles

Underlying material:

32 to 52 inches—yellowish red very channery clay loam that has brownish yellow lithochromic mottles

52 to 80 inches—soft bedrock

Minor Components

Dissimilar:

- Few small areas of Callison, Georgeville, and Mecklenburg soils in landform positions similar to those of the Gundy soil

Similar:

- Few small areas of noneroded soils
- Small areas that have shallow to deep gullies
- Small areas of well drained and moderately well drained soils that have less clay in the subsoil than the Gundy soil
- Small areas of soils that have channery saprolite within a depth of 20 inches and have 35 percent or more coarse fragments
- Small areas of soils that have a more acid subsoil than the Gundy soil

Soil Properties and Qualities

Depth class: Deep or very deep

Drainage class: Well drained

Slope class: Strongly sloping

Reaction: Strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Deep or very deep; soil easily penetrated by plant roots

Depth to soft bedrock: 40 to more than 60 inches

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas and picnic areas; poorly suited to playgrounds and paths and trails

Management concerns: Slope and erosion

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements and septic tank absorption fields; poorly suited to local roads and streets

Management concerns: Shrink-swell potential, lower saturated hydraulic conductivity, bedrock, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell potential.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

**GnE2—Gundy silt loam, 15 to 25 percent slopes,
moderately eroded**

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Gundy and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown silt loam

Subsoil:

4 to 20 inches—red clay

20 to 27 inches—red clay loam that has reddish yellow lithochromic mottles

27 to 32 inches—red channery clay loam that has reddish yellow lithochromic mottles

Underlying material:

32 to 52 inches—yellowish red very channery clay loam that has brownish yellow lithochromic mottles

52 to 80 inches—soft bedrock

Minor Components

Dissimilar:

- Few small areas of Georgeville soils in landform positions similar to those of the Gundy soil

Similar:

- Few small areas of noneroded soils
- Small areas that have shallow to deep gullies
- Small areas of well drained and moderately well drained soils that have less clay in the subsoil than the Gundy soil
- Small areas of soils that have channery saprolite within a depth of 20 inches and have 35 percent or more of coarse fragments
- Small areas of soils that have a more acid subsoil than the Gundy soil

Soil Properties and Qualities

Depth class: Deep or very deep

Drainage class: Well drained

Slope class: Moderately steep

Reaction: Strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Deep or very deep; soil easily penetrated by plant roots

Depth to soft bedrock: 40 to more than 60 inches

Runoff: Very rapid

Erosion hazard: Severe

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Slope and erosion

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell potential, lower saturated hydraulic conductivity, bedrock, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell potential.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

HaB—Hard Labor sandy loam, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 150 acres

Composition

Hard Labor and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 10 inches—yellowish brown sandy loam

Subsoil:

10 to 15 inches—brownish yellow sandy clay loam

15 to 40 inches—brownish yellow clay that has red masses of oxidized iron

40 to 45 inches—brownish yellow clay that has very pale brown iron depletions and red masses of oxidized iron

45 to 80 inches—brownish yellow clay loam that has light gray iron depletions and strong brown and red masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Winnsboro, and Wynott soils in landform positions similar to those of the Hard Labor soil
- Few small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions
- Few small areas of Pacolet and Rion soils that are mainly on side slopes

Similar:

- Cataula soils in landform positions similar to those of the Hard Labor soil
- Small areas of eroded soils
- Small areas of soils that have many mica flakes throughout the solum
- Small areas of soils that do not have redoximorphic features

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Gently sloping

Reaction: Very strongly acid to moderately acid throughout the profile, except where lime has been applied; the soil generally is slightly acid or neutral in the upper part in limed areas

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Depth to water table: 2.5 to 5.0 feet

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Well suited to dwellings without basements; moderately suited to local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Low saturated hydraulic conductivity, wetness, and low strength

Management measures and considerations:

- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

HaC—Hard Labor sandy loam, 6 to 10 percent slopes

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 100 acres

Composition

Hard Labor and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 10 inches—yellowish brown sandy loam

Subsoil:

10 to 15 inches—brownish yellow sandy clay loam

15 to 40 inches—brownish yellow clay that has red masses of oxidized iron

40 to 45 inches—brownish yellow clay that has very pale brown iron depletions and red masses of oxidized iron

45 to 80 inches—brownish yellow clay loam that has light gray iron depletions and strong brown and red masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Pacolet, Rion, Winnsboro, and Wynott soils in landform positions similar to those of the Hard Labor soil
- Few small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions

Similar:

- Cataula soils in landform positions similar to those of the Hard Labor soil
- Small areas of eroded soils
- Small areas of soils that have many mica flakes throughout the solum
- Small areas of soils that do not have redoximorphic features

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Sloping

Reaction: Very strongly acid to moderately acid throughout the profile, except where lime has been applied; the soil generally is slightly acid or neutral in the upper part in limed areas

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Depth to water table: 2.5 to 5.0 feet

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Moderately suited to dwellings without basements; poorly suited to septic tank absorption fields and local roads and streets

Management concerns: Low saturated hydraulic conductivity, wetness, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

HeB—Helena sandy loam, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 150 acres

Composition

Helena and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy loam

Subsurface layer:

3 to 7 inches—light yellowish brown sandy loam

Subsoil:

7 to 12 inches—brownish yellow sandy clay loam

12 to 23 inches—brownish yellow clay that has yellowish red masses of oxidized iron

23 to 38 inches—olive yellow clay that has light gray iron depletions and red masses of oxidized iron

38 to 80 inches—brownish yellow sandy clay loam that has white iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, Winnsboro, and Wynott soils in the slightly higher landform positions
- Few small areas of Bush River, Prosperity, and Santuc soils in landform positions similar to those of the Helena soil

Similar:

- Small areas of eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Gently sloping

Reaction: Very strongly acid or strongly acid throughout the profile, except where lime has been applied; the soil generally is moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Depth to water table: 1.5 to 2.5 feet

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, moderately low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.

- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Low saturated hydraulic conductivity, wetness, and slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- The use of areas should be restricted during wet periods.
- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, low saturated hydraulic conductivity, wetness, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.

HeC—Helena sandy loam, 6 to 10 percent slopes

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Helena and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy loam

Subsurface layer:

3 to 7 inches—light yellowish brown sandy loam

Subsoil:

7 to 12 inches—brownish yellow sandy clay loam

12 to 23 inches—brownish yellow clay that has yellowish red masses of oxidized iron

23 to 38 inches—olive yellow clay that has light gray iron depletions and red masses of oxidized iron

38 to 80 inches—brownish yellow sandy clay loam that has white iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, Winnsboro, and Wynott soils in the slightly higher landform positions
- Few small areas of Bush River, Prosperity, and Santuc soils in landform positions similar to those of the Helena soil

Similar:

- Small areas of eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Sloping

Reaction: Very strongly acid or strongly acid throughout the profile, except where lime has been applied; the soil generally is moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Depth to water table: 1.5 to 2.5 feet

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, moderately low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas, picnic areas, and paths and trails; poorly suited to playgrounds

Management concerns: Low saturated hydraulic conductivity, wetness, and slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- The use of areas should be restricted during wet periods.
- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, low saturated hydraulic conductivity, wetness, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

HwB2—Hiwassee sandy loam, 2 to 6 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 75 acres

Composition

Hiwassee and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 5 inches—dark reddish brown sandy loam

Subsoil:

5 to 38 inches—dark reddish brown clay

38 to 57 inches—red clay

57 to 80 inches—red clay loam

Minor Components

Dissimilar:

- Few small areas of Altavista soils in landform positions similar to those of the Hiwassee soil
- Few small areas of Chenneby, Shellbluff, and Toccoa soils on flood plains

Similar:

- Cecil, Davidson, and Georgeville soils, which do not occur on high stream terraces

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture and cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.

- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to camp areas, picnic areas, and paths and trails; moderately suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Well suited to dwellings without basements; moderately suited to septic tank absorption fields and local roads and streets

Management concerns: Lower saturated hydraulic conductivity and low strength

Management measures and considerations:

- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

HwD2—Hiwassee sandy loam, 6 to 15 percent slopes, moderately eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 50 acres

Composition

Hiwassee and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 5 inches—dark reddish brown sandy loam

Subsoil:

5 to 38 inches—dark reddish brown clay

38 to 57 inches—red clay

57 to 80 inches—red clay loam

Minor Components

Dissimilar:

- Few small areas of Altavista soils in landform positions similar to those of the Hiwassee soil
- Few small areas of Chenneby, Shellbluff, Rion, and Toccoa soils, which do not occur on high stream terraces

Similar:

- Cecil and Pacolet soils, which do not occur on high stream terraces

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Sloping or strongly sloping

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture and cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Moderately suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

McB—Mecklenburg sandy loam, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Mecklenburg and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 8 inches—brown sandy loam

Subsoil:

8 to 14 inches—dark reddish brown sandy clay loam

14 to 30 inches—red clay

30 to 38 inches—red clay that has strong brown lithochromic mottles

38 to 52 inches—yellowish red clay loam that has reddish yellow lithochromic mottles

Underlying material:

52 to 80 inches—yellowish red sandy clay loam that has reddish yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Cecil, Davidson, Winnsboro, and Wynott soils in landform positions similar to those of the Mecklenburg soil
- Few small areas of Sedgefield soils in the slightly lower landform positions

Similar:

- Small areas of eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Strongly acid to slightly acid in the A horizon and moderately acid to neutral in the B and C horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Moderately low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low

air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.

- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements; poorly suited to septic tank absorption fields and local roads and streets

Management concerns: Shrink-swell, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

MeB2—Mecklenburg sandy clay loam, 2 to 6 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 75 acres

Composition

Mecklenburg and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 20 inches—red clay

20 to 35 inches—red clay that has strong brown lithochromic mottles

35 to 50 inches—red clay loam that has reddish yellow lithochromic mottles

Underlying material:

50 to 80 inches—red loam that has reddish yellow and very dark brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Cecil, Davidson, Winnsboro, and Wynott soils in landform positions similar to those of the Mecklenburg soil
- Few small areas of Sedgefield soils in the slightly lower landform positions

Similar:

- Few small areas of noneroded and severely eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Strongly acid to slightly acid in the A horizon and moderately acid to neutral in the B and C horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Poorly suited to loblolly pine and well suited to yellow-poplar

Management concerns: Moderately low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements; poorly suited to septic tank absorption fields and local roads and streets

Management concerns: Shrink-swell, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

MeC2—Mecklenburg sandy clay loam, 6 to 10 percent slopes, moderately eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 60 acres

Composition

Mecklenburg and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 20 inches—red clay

20 to 35 inches—red clay that has strong brown lithochromic mottles

35 to 50 inches—red clay loam that has reddish yellow lithochromic mottles

Underlying material:

50 to 80 inches—red loam that has reddish yellow and very dark brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Cecil, Winnsboro, and Wynott soils in landform positions similar to those of the Mecklenburg soil

Similar:

- Few small areas of noneroded and severely eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Sloping

Reaction: Strongly acid to slightly acid in the A horizon and moderately acid to neutral in the B and C horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Poorly suited to loblolly pine; well suited to yellow-poplar

Management concerns: Moderately low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements; poorly suited to septic tank absorption fields and local roads and streets

Management concerns: Shrink-swell potential, low saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell potential.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

PaD2—Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Pacolet and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsoil:

2 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

Underlying material:

43 to 80 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Small areas of Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Pacolet soil

Similar:

- Cecil and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils
- Small areas of severely eroded soils
- Small areas that have shallow to deep gullies
- Small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Strongly sloping

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid throughout the rest of the profile

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Poorly suited to woodland wildlife habitat; very poorly suited to openland and wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

PaE2—Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 70 acres

Composition

Pacolet and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsoil:

2 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

Underlying material:

43 to 80 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Small areas of Winnsboro and Wynnott soils in landform positions similar to those of the Pacolet soil

Similar:

- Cecil and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils
- Small areas of severely eroded soils
- Small areas that have shallow to deep gullies
- Small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Moderately steep

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid throughout the rest of the profile

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Very rapid

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Slope, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.

- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Very poorly suited to openland, woodland, and wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and slope; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

PaF2—Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 70 acres

Composition

Pacolet and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsoil:

2 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

Underlying material:

43 to 80 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Winnsboro and Wynnott soils in landform positions similar to those of the Pacolet soil

Similar:

- Few small areas of Cecil and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils
- Small areas of severely eroded soils
- Small areas that have shallow to deep gullies
- Small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Steep or very steep

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid throughout the rest of the profile

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Very rapid

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Slope, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Very poorly suited to openland, woodland, and wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and slope; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

PcC3—Pacolet clay loam, 6 to 10 percent slopes, severely eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 20 acres

Composition

Pacolet and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—yellowish red clay loam

Subsoil:

2 to 15 inches—red clay

15 to 30 inches—red clay that has strong brown lithochromic mottles

30 to 52 inches—red clay loam that has strong brown lithochromic mottles

Underlying material:

52 to 80 inches—yellowish red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Cataula, Hard Labor, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Pacolet soil
- Few small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions

Similar:

- Few small areas of Cecil and Rion soils in landform positions similar to those of the Pacolet soil
- Small areas of noneroded and eroded soils
- Small areas of soils that have many mica flakes

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Sloping

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid throughout the rest of the profile

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, gullies, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Moderately suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

PmB—Prosperity-Bush River-Helena complex, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 300 acres

Composition

Prosperity and similar soils: 45 percent

Bush River and similar soils: 15 percent

Helena and similar soils: 15 percent

Dissimilar soils: 25 percent

Typical Profile

Prosperity

Surface layer:

0 to 6 inches—brown sandy loam

Subsoil:

6 to 15 inches—strong brown clay that has brownish yellow and yellowish red masses of oxidized iron

15 to 21 inches—brownish yellow clay that has pale brown iron depletions and strong brown masses of oxidized iron

21 to 29 inches—yellowish brown, light gray, and reddish yellow clay

29 to 35 inches—yellowish brown, light gray, and reddish yellow sandy clay loam

Underlying material:

35 to 80 inches—soft bedrock

Bush River

Surface layer:

0 to 10 inches—brown sandy loam

Subsoil:

10 to 14 inches—brownish yellow sandy clay loam

14 to 34 inches—brownish yellow clay that has red masses of oxidized iron

Soil Survey of Newberry County, South Carolina

34 to 46 inches—brownish yellow, light brownish gray, and reddish yellow sandy clay loam

Underlying material:

46 to 80 inches—soft bedrock

Helena

Surface layer:

0 to 3 inches—brown sandy loam

Subsurface layer:

3 to 7 inches—light yellowish brown sandy loam

Subsoil:

7 to 12 inches—brownish yellow sandy clay loam

12 to 23 inches—brownish yellow clay that has yellowish red masses of oxidized iron

23 to 38 inches—olive yellow clay that has light gray iron depletions and red masses of oxidized iron

38 to 80 inches—brownish yellow sandy clay loam that has white iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cataula, Cecil, Hard Labor, Winnsboro, and Wynott soils in the slightly higher landform positions
- Few small areas of Santuc soils in landform positions similar to those of the Prosperity, Bush River, and Helena soils

Similar:

- Small areas of eroded soils

Soil Properties and Qualities

Depth class: Prosperity—moderately deep; Bush River—deep; Helena—very deep

Drainage class: Moderately well drained

Slope class: Gently sloping

Reaction: Prosperity and Bush River—very strongly acid to moderately acid throughout the profile, except where lime has been applied, and ranging to slightly acid in the upper part in limed areas; Helena—very strongly acid or strongly acid throughout the profile, except where lime has been applied, and generally moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately low

Available water capacity: Prosperity—low; Bush River and Helena—moderate

Root zone: Prosperity—moderately deep; Bush River—deep; Helena—very deep; soils easily penetrated by plant roots

Depth to soft bedrock: Prosperity—20 to 40 inches; Bush River—40 to 60 inches; Helena—more than 60 inches

Runoff: Medium

Erosion hazard: Moderate

Depth to water table: 1.5 to 2.5 feet

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, moderately low saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- These soils have the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Because of the moderately low saturated hydraulic conductivity and wetness, seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and bedrock; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Wetness and low saturated hydraulic conductivity

Management measures and considerations:

- Surface drains and landscaping are needed to remove excess water quickly, the

addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.

- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, wetness, low saturated hydraulic conductivity, bedrock, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.

PmC—Prosperity-Bush River-Helena complex, 6 to 10 percent slopes

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 75 acres

Composition

Prosperity and similar soils: 27 percent

Bush River and similar soils: 27 percent

Helena and similar soils: 21 percent

Dissimilar soils: 25 percent

Typical Profile

Prosperity

Surface layer:

0 to 6 inches—brown sandy loam

Subsoil:

6 to 15 inches—strong brown clay that has brownish yellow and yellowish red masses of oxidized iron

15 to 21 inches—brownish yellow clay that has pale brown iron depletions and strong brown masses of oxidized iron

21 to 29 inches—yellowish brown, light gray, and reddish yellow clay

29 to 35 inches—yellowish brown, light gray, and reddish yellow sandy clay loam

Underlying material:

35 to 80 inches—soft bedrock

Bush River

Surface layer:

0 to 10 inches—brown sandy loam

Subsoil:

10 to 14 inches—brownish yellow sandy clay loam

14 to 34 inches—brownish yellow clay that has red masses of oxidized iron

34 to 46 inches—brownish yellow, light brownish gray, and reddish yellow sandy clay loam

Underlying material:

46 to 80 inches—soft bedrock

Helena

Surface layer:

0 to 3 inches—brown sandy loam

Subsurface layer:

3 to 7 inches—light yellowish brown sandy loam

Subsoil:

7 to 12 inches—brownish yellow sandy clay loam

12 to 23 inches—brownish yellow clay that has yellowish red masses of oxidized iron

23 to 38 inches—olive yellow clay that has light gray iron depletions and red masses of oxidized iron

38 to 80 inches—brownish yellow sandy clay loam that has white iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cataula, Cecil, Hard Labor, Winnsboro, and Wynott soils in the slightly higher landform positions
- Few small areas of Santuc soils in landform positions similar to those of the Prosperity, Bush River, and Helena soils

Similar:

- Small areas of eroded soils

Soil Properties and Qualities

Depth class: Prosperity—moderately deep; Bush River—deep; Helena—very deep

Drainage class: Moderately well drained

Slope class: Sloping

Reaction: Prosperity and Bush River—very strongly acid to moderately acid throughout the profile, except where lime has been applied, and ranging to slightly acid in the upper part in limed areas; Helena—very strongly acid or strongly acid throughout the profile, except where lime has been applied, and generally moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately low

Available water capacity: Prosperity—low; Bush River and Helena—moderate

Root zone: Prosperity—moderately deep; Bush River—deep; Helena—very deep; soils easily penetrated by plant roots

Depth to soft bedrock: Prosperity—20 to 40 inches; Bush River—40 to 60 inches; Helena—more than 60 inches

Runoff: Rapid

Erosion hazard: Moderate

Depth to water table: 1.5 to 2.5 feet

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, moderately low saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- These soils have the potential for producing high-quality trees of sawtimber size
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Because of the moderately low saturated hydraulic conductivity and wetness, seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and bedrock; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.

- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas, picnic areas, and paths and trails; poorly suited to playgrounds

Management concerns: Wetness, low saturated hydraulic conductivity, and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, wetness, low saturated hydraulic conductivity, bedrock, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

RnC2—Rion sandy loam, 6 to 10 percent slopes, moderately eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Rion and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 25 inches—strong brown sandy clay loam that has reddish yellow lithochromic mottles

25 to 35 inches—yellowish brown sandy clay loam that has light yellowish brown and yellowish brown lithochromic mottles

Underlying material:

35 to 48 inches—light yellowish brown sandy loam that has very dark grayish brown lithochromic mottles

48 to 80 inches—dark yellowish brown sandy loam that has very pale brown and yellowish brown lithochromic mottles

Minor Components

Dissimilar:

- Small areas of Hard Labor, Mecklenburg, Winnsboro, and Wynott soils in landform positions similar to those of the Rion soil
- Small areas of Helena, Bush River, Prosperity, and Santuc soils in the slightly lower landform positions

Similar:

- Small areas of Cecil and Pacolet soils in landform positions similar to those of the Rion soil
- Few small areas of noneroded soils
- Small areas of severely eroded soils
- Small areas that have shallow to deep gullies
- Small areas of soils that have a solum more than 40 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Sloping

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Cropland and pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to woodland wildlife habitat; moderately suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements and local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

**RnD2—Rion sandy loam, 10 to 15 percent slopes,
moderately eroded**

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Rion and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 25 inches—strong brown sandy clay loam that has reddish yellow lithochromic mottles

25 to 35 inches—yellowish brown sandy clay loam that has light yellowish brown and yellowish brown lithochromic mottles

Underlying material:

35 to 48 inches—light yellowish brown sandy loam that has very dark grayish brown lithochromic mottles

48 to 80 inches—dark yellowish brown sandy loam that has very pale brown and yellowish brown lithochromic mottles

Minor Components

Dissimilar:

- Small areas of Mecklenburg, Wilkes, Winnsboro, and Wynott soils in landform positions similar to those of the Rion soil

Similar:

- Small areas of Cecil and Pacolet soils in landform positions similar to those of the Rion soil
- Few small areas of noneroded soils
- Small areas of severely eroded soils
- Small areas that have shallow to deep gullies
- Small areas of soils that have a solum more than 40 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Strongly sloping

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Moderately suited to dwellings without basements and local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

RnE2—Rion sandy loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 150 acres

Composition

Rion and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 25 inches—strong brown sandy clay loam that has reddish yellow lithochromic mottles

25 to 35 inches—yellowish brown sandy clay loam that has light yellowish brown and yellowish brown lithochromic mottles

Underlying material:

35 to 48 inches—light yellowish brown sandy loam that has very dark grayish brown lithochromic mottles

48 to 80 inches—dark yellowish brown sandy loam that has very pale brown and yellowish brown lithochromic mottles

Minor Components

Dissimilar:

- Small areas of Wilkes, Winnsboro, and Wynott soils in landform positions similar to those of the Rion soil

Similar:

- Small areas of Pacolet soils in landform positions similar to those of the Rion soil
- Few small areas of noneroded soils
- Small areas of severely eroded soils
- Small areas that have shallow to deep gullies
- Small areas of soils that have a solum more than 40 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Moderately steep

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Very rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Slope, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and slope; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

RnF2—Rion sandy loam, 25 to 50 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Rion and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 25 inches—strong brown sandy clay loam that has reddish yellow lithochromic mottles

25 to 35 inches—yellowish brown sandy clay loam that has light yellowish brown and yellowish brown lithochromic mottles

Underlying material:

35 to 48 inches—light yellowish brown sandy loam that has very dark grayish brown lithochromic mottles

48 to 80 inches—dark yellowish brown sandy loam that has very pale brown and yellowish brown lithochromic mottles

Minor Components

Dissimilar:

- Small areas of Wilkes, Winnsboro, and Wynott soils in landform positions similar to those of the Rion soil

Similar:

- Small areas of Pacolet soils in landform positions similar to those of the Rion soil
- Few small areas of noneroded soils
- Small areas of severely eroded soils
- Small areas that have shallow to deep gullies
- Small areas of soils that have a solum more than 40 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Slope class: Steep or very steep

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Very rapid

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Idle land

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Slope, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and slope; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Slope

Management measures and considerations:

- Facilities and structures should be constructed in nearly level areas.
- Gullies should be avoided when planning for most kinds of recreational activities.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Lower saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

SaB—Santuc loamy coarse sand, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 150 acres

Composition

Santuc and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—dark grayish brown loamy coarse sand

Subsurface layer:

3 to 9 inches—brown sandy loam

Subsoil:

9 to 14 inches—yellowish brown sandy loam

14 to 26 inches—yellowish brown sandy clay loam that has reddish yellow and yellowish red masses of oxidized iron

26 to 41 inches—brownish yellow clay loam that has light brownish gray iron depletions and yellow masses of oxidized iron

41 to 51 inches—yellow loam that has very pale brown, light brownish gray, and light gray iron depletions

Underlying material:

51 to 80 inches—very pale brown sandy loam that has light brownish gray iron depletions and yellow and reddish yellow masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, Winnsboro, and Wynott soils in the slightly higher landform positions

- Few small areas of Helena, Bush River, and Prosperity soils in landform positions similar to those of the Santuc soil

Similar:

- Small areas of eroded soils
- Small areas of soils that have sandy surface layers more than 20 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Gently sloping

Reaction: Extremely acid to strongly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Depth to water table: 1.5 to 3.0 feet

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low

air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.

- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—sandiness; wetland—deepness to water and sandiness

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Sandiness, wetness, and slope

Management measures and considerations:

- Loamy topsoil may need to be added to the loose, sandy surface and a ground cover that is tolerant of heavy foot traffic needs to be established to create a firmer surface.
- Surface drains and landscaping are needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Moderately suited to dwellings without basements and local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Wetness and lower saturated hydraulic conductivity

Management measures and considerations:

- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.

SaC—Santuc loamy coarse sand, 6 to 10 percent slopes

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Santuc and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 3 inches—dark grayish brown loamy coarse sand

Subsurface layer:

3 to 9 inches—brown sandy loam

Subsoil:

9 to 14 inches—yellowish brown sandy loam

14 to 26 inches—yellowish brown sandy clay loam that has reddish yellow and yellowish red masses of oxidized iron

26 to 41 inches—brownish yellow clay loam that has light brownish gray iron depletions and yellow masses of oxidized iron

41 to 51 inches—yellow loam that has very pale brown, light brownish gray, and light gray iron depletions

Underlying material:

51 to 80 inches—very pale brown sandy loam that has light brownish gray iron depletions and yellow and reddish yellow masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, Winnsboro, and Wynott soils in the slightly higher landform positions
- Few small areas of Helena, Bush River, and Prosperity soils in landform positions similar to those of the Santuc soil

Similar:

- Small areas of eroded soils
- Small areas of soils that have sandy surface layers more than 20 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Slope class: Sloping

Reaction: Extremely acid to strongly acid throughout the profile, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Rapid

Erosion hazard: Moderate

Depth to water table: 1.5 to 3.0 feet

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, susceptibility to erosion, and wetness

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, lower saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—sandiness; wetland—deepness to water, sandiness, and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to camp areas, picnic areas, and paths and trails; poorly suited to playgrounds

Management concerns: Sandiness, wetness, and slope

Management measures and considerations:

- Loamy topsoil may need to be added to the loose, sandy surface and a ground cover that is tolerant of heavy foot traffic needs to be established to create a firmer surface.
- Surface drains and landscaping are needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Moderately suited to dwellings without basements and local roads and streets; poorly suited to septic tank absorption fields

Management concerns: Wetness, lower saturated hydraulic conductivity, and slope

Management measures and considerations:

- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The lower saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

SeB—Sedgefield sandy loam, 0 to 4 percent slopes

Setting

Landform position: Broad ridges and gentle side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 200 acres

Composition

Sedgefield and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 10 inches—brown sandy loam

Subsoil:

10 to 13 inches—brown sandy clay loam

13 to 15 inches—yellowish brown clay that has light brownish gray iron depletions and brownish yellow masses of oxidized iron

15 to 25 inches—yellowish brown clay that has light brownish gray iron depletions

25 to 28 inches—light yellowish brown clay that has greenish gray iron depletions and yellowish brown masses of oxidized iron

28 to 32 inches—olive sandy clay loam that has white and greenish gray iron depletions and yellowish brown masses of oxidized iron

Underlying material:

32 to 80 inches—white, greenish gray, and light olive brown sandy loam

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, Helena, Mecklenburg, Bush River, Prosperity, Santuc, Winnsboro, and Wynott soils in the slightly higher landform positions

Similar:

- Small areas of eroded soils
- Small areas that have a more basic subsoil than the Sedgefield soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained or somewhat poorly drained

Slope class: Nearly level or gently sloping

Reaction: Very strongly acid to slightly acid in the A horizon and the upper part of the Bt horizon and moderately acid to moderately alkaline in the lower part of the Bt horizon and in the C horizon

Saturated hydraulic conductivity: Moderately low

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Slow or medium

Erosion hazard: Slight or moderate

Depth to water table: 1.0 foot to 1.5 feet

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Some type of drainage system is needed in order to grow crops.
- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, susceptibility to erosion, and wetness

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry and wet periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, moderately low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low

air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.

- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; poorly suited or very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to picnic areas and paths and trails; poorly suited to camp areas and playgrounds

Management concerns: Wetness and low saturated hydraulic conductivity

Management measures and considerations:

- Surface drains and landscaping are needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, wetness, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Constructing roads on raised, well compacted fill material helps to overcome the wetness limitation.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength.

ShA—Shellbluff silty clay loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform position: First bottoms along streams

Size of areas: About 10 to 300 acres

Composition

Shellbluff and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 4 inches—brown silty clay loam

Subsoil:

4 to 17 inches—brown silty clay loam that has yellowish brown masses of oxidized iron

17 to 32 inches—brown silty clay loam that has brown iron depletions and dark yellowish brown masses of oxidized iron

32 to 44 inches—brown silty clay loam that has grayish brown iron depletions and dark yellowish brown masses of oxidized iron

Underlying material:

44 to 60 inches—brown silty clay loam that has grayish brown iron depletions and yellowish brown masses of oxidized iron

60 to 80 inches—gray silty clay loam that has brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cartecay, Chenneby, and Toccoa soils in landform positions similar to those of the Shellbluff soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained or well drained

Slope class: Nearly level

Reaction: Very strongly acid to slightly acid, except where lime has been applied

Saturated hydraulic conductivity: Moderately high

Available water capacity: Very high

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Slow

Erosion hazard: Slight

Flooding: Frequent

Depth to water table: 3.0 to 5.0 feet

Shrink-swell potential of subsoil: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture and cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Flooding

Management measures and considerations:

- Conservation practices that add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Flooding

Management measures and considerations:

- Protecting areas from flooding is generally not economically feasible.

- Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, flooding, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Temporary logging roads may require fill material to prevent extensive rutting and compaction.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—flooding and wetness; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to picnic areas and paths and trails; poorly suited to camp areas and playgrounds

Management concerns: Flooding

Management measures and considerations:

- Areas of this soil should not be used during episodes of flooding, and facilities and structures should be constructed to withstand brief periods of inundation.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Flooding, wetness, and low strength

Management measures and considerations:

- Because of the difficulty and expense of reducing the flooding limitation, this soil generally is not used for dwellings or septic tank absorption fields.
- Using well compacted fill material as a road base may help to elevate roads above the level of flooding and overcome the wetness limitation.

ToA—Toccoa sandy loam, 0 to 3 percent slopes, frequently flooded

Setting

Landform position: First bottoms along small to large streams

Size of areas: About 10 to 300 acres

Composition

Toccoa and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Underlying material:

2 to 17 inches—yellowish red sandy loam

17 to 24 inches—strong brown sandy loam

24 to 42 inches—brown sandy loam that has strong brown masses of oxidized iron

42 to 80 inches—brown and light grayish brown loam that has brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cartecay, Chenneby, and Shellbluff soils in landform positions similar to those of the Toccoa soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained or well drained

Slope class: Nearly level or gently sloping

Reaction: Strongly acid to slightly acid, except where lime has been applied; all pedons have a subhorizon in the 10- to 40-inch control section that is moderately acid or slightly acid

Saturated hydraulic conductivity: High

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Slow or medium

Erosion hazard: Very slight

Flooding: Frequent

Depth to water table: 2.5 to 5.0 feet

Shrink-swell potential of substratum: Low

Land Use

Dominant uses: Woodland

Other uses: Pasture and cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Flooding

Management measures and considerations:

- Conservation practices that add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Flooding

Management measures and considerations:

- Protecting areas from flooding is generally not economically feasible.

- Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Flooding and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Temporary logging roads may require fill material to prevent extensive rutting and compaction.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to woodland wildlife habitat; moderately suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—flooding and droughtiness; wetland—deepness to water and seepage

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to picnic areas and paths and trails; poorly suited to camp areas and playgrounds

Management concerns: Flooding

Management measures and considerations:

- Areas of this soil should not be used during episodes of flooding, and facilities and structures should be constructed to withstand brief periods of inundation.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Flooding and wetness

Management measures and considerations:

- Because of the difficulty and expense of reducing the flooding limitation, this soil generally is not used for dwellings or septic tank absorption fields.
- Using well compacted fill material as a road base may help to elevate roads above the level of flooding.

UcC2—Urban land-Cecil complex, 2 to 10 percent slopes, moderately eroded

Setting

Landform position: Areas within the town of Whitmire

Size of areas: About 10 to 600 acres

Composition

Urban land: 50 percent
Cecil and similar soils: 35 percent
Dissimilar soils: 15 percent

Typical Profile

Urban land

Urban land is made up of areas that have been excavated, filled, covered by buildings or pavement, or otherwise disturbed by humans. About 70 to 85 percent of Urban land is covered by pavement or industrial, commercial, or residential buildings. Uncovered areas that have been excavated or filled are generally loamy, but the texture may be highly variable within short distances. No interpretations are given for Urban land.

Cecil

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 15 inches—red clay

15 to 38 inches—red clay that has strong brown lithochromic mottles

38 to 48 inches—red clay loam that has yellowish red and strong brown lithochromic mottles

48 to 80 inches—red sandy clay loam that has strong brown lithochromic mottles and very pale brown iron depletions

Minor Components

Dissimilar:

- Few small areas of Cataula, Hard Labor, Helena, Bush River, Prosperity, Winnsboro, and Wynott soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Pacolet and Rion soils in landform positions similar to those of the Cecil soil
- Small areas of noneroded soils

Properties and Qualities of the Cecil Soil

Depth class: Very deep

Reaction: Very strongly acid to moderately acid in the A horizon, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons; the soil generally is moderately acid or slightly acid in the upper part in limed areas

Drainage class: Well drained

Slope class: Gently sloping or strongly sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium or rapid

Erosion hazard: Moderate

Depth to water table: More than 6.0 feet

Shrink-swell potential of subsoil: Low

Land Use

This map unit is not used for farming, except for small vegetable gardens. Onsite investigation is needed for all uses.

UsC—Urban land-Cecil-Santuc complex, 2 to 10 percent slopes

Setting

Landform position: Areas within the towns and suburbs of Newberry and Prosperity

Size of areas: About 10 to 2,000 acres

Composition

Urban land: 50 percent

Cecil and similar soils: 20 percent

Santuc and similar soils: 20 percent

Dissimilar soils: 10 percent

Typical Profile

Urban land

Urban land is made up of areas that have been excavated, filled, covered by buildings or pavement, or otherwise disturbed by humans. About 70 to 85 percent of Urban land is covered by pavement or industrial, commercial, or residential buildings. Uncovered areas that have been excavated or filled are generally loamy, but the texture may be highly variable within short distances. No interpretations are given for Urban land.

Cecil

Surface layer:

0 to 6 inches—brown sandy loam

Subsoil:

6 to 18 inches—red clay

18 to 42 inches—red clay that has reddish yellow lithochromic mottles

42 to 80 inches—red clay loam

Santuc

Surface layer:

0 to 3 inches—dark grayish brown loamy coarse sand

Subsurface layer:

3 to 9 inches—brown sandy loam

Subsoil:

9 to 14 inches—yellowish brown sandy loam

14 to 26 inches—yellowish brown sandy clay loam that has reddish yellow and yellowish red masses of oxidized iron

26 to 41 inches—brownish yellow clay loam that has light brownish gray iron depletions and yellow masses of oxidized iron

41 to 51 inches—yellow loam that has very pale brown, light brownish gray, and light gray iron depletions

Underlying material:

51 to 80 inches—very pale brown sandy loam that has light brownish gray iron depletions and yellow and reddish yellow masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cartecay and Worsham soils in the slightly lower landform positions
- Few small areas of Cataula, Hard Labor, Helena, Bush River, Prosperity, Winnsboro, and Wynott soils in landform positions similar to those of the Cecil and Santuc soils

Similar:

- Few small areas of Pacolet and Rion soils in landform positions similar to those of the Cecil and Santuc soils
- Small areas of eroded soils

Properties and Qualities of the Cecil and Santuc Soils

Depth class: Very deep

Drainage class: Cecil—well drained; Santuc—moderately well drained

Slope class: Gently sloping to sloping

Reaction: Cecil—very strongly acid to moderately acid in the A horizon, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons; Santuc—extremely acid to strongly acid throughout the profile, except where lime has been applied; soils generally are moderately acid or slightly acid in the upper part in limed areas

Saturated hydraulic conductivity: Moderately high

Available water capacity: Cecil—high; Santuc—moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium or rapid

Erosion hazard: Cecil—moderate; Santuc—slight or moderate

Depth to water table: Cecil—more than 6.0 feet; Santuc—1.5 to 3.0 feet

Shrink-swell potential of subsoil: Cecil—low; Santuc—moderate

Land Use

This map unit is not used for farming, except for small vegetable gardens. Onsite investigation is needed for all uses.

WnB—Winnsboro sandy loam, 2 to 6 percent slopes

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Winnsboro and similar soils: 75 percent

Dissimilar soils: 25 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 6 inches—light yellowish brown sandy loam

Subsoil:

6 to 30 inches—light olive brown clay

30 to 36 inches—reddish yellow sandy clay loam that has yellowish brown lithochromic mottles

Underlying material:

36 to 41 inches—very pale brown sandy loam that has yellowish brown lithochromic mottles

41 to 80 inches—soft bedrock

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, Mecklenburg, and Wynott soils in landform positions similar to those of the Winnsboro soil
- Few small areas of Helena, Bush River, Prosperity, and Sedgefield soils in the slightly lower landform positions

Similar:

- Small areas of eroded soils
- Small areas of soils with overwash
- Small areas that have a more acid subsoil than the Winnsboro soil

Soil Properties and Qualities

Depth class: Deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Strongly acid to slightly acid in the A horizon, except where lime has been applied, and slightly acid to slightly alkaline in the B and C horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Deep; soil easily penetrated by plant roots

Depth to soft bedrock: 40 to 60 inches

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Cropland and pasture

Other uses: Woodland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Moderately low saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility and low saturated hydraulic conductivity; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, bedrock, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.

WoA—Worsham loam, 0 to 2 percent slopes

Setting

Landform position: Areas at the heads of drainageways or in depressions

Size of areas: About 5 to 30 acres

Composition

Worsham and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 5 inches—dark grayish brown loam

Subsoil:

5 to 17 inches—grayish brown sandy clay loam that has light olive brown masses of oxidized iron

17 to 53 inches—gray clay that has yellowish brown masses of oxidized iron

53 to 80 inches—dark grayish brown sandy clay loam that has yellowish brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cartecay and Toccoa soils on flood plains
- Few small areas of Santuc and Sedgefield soils in the slightly higher landform positions

Similar:

- Small areas of soils that have slopes of more than 2 percent
- Small areas of soils that have sandy surface layers more than 20 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Poorly drained

Slope class: Nearly level

Reaction: Very strongly acid to slightly alkaline throughout the profile

Saturated hydraulic conductivity: Very low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Slow

Erosion hazard: Very slight

Depth to water table: 0.0 to 1.0 foot

Shrink-swell potential of subsoil: Moderate

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Wetness

Management measures and considerations:

- Conservation practices that add organic matter to the soil are needed.
- Some type of drainage system is needed in order to grow cultivated crops.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Flooding and wetness

Management measures and considerations:

- Protecting areas from flooding is generally not economically feasible.
- Drainage can be provided by maintaining open ditches and surface drains.
- Grazing should be delayed until the soil has drained sufficiently and is firm enough to withstand trampling by livestock.
- Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the pasture in good condition.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, very low saturated hydraulic conductivity, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Wetness is difficult to overcome but can be overcome to some extent by performing all logging operations and site preparations during dry seasons.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; well suited to wetland wildlife habitat

Management concerns: Openland and woodland—wetness and low saturated hydraulic conductivity; wetland—no limitations

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning helps to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to camp areas, picnic areas, playgrounds, and paths and trails

Management concerns: Wetness and low saturated hydraulic conductivity

Management measures and considerations:

- Surface drains and landscaping are needed to remove excess water quickly, the addition of some fill material may be necessary, and the use of areas should be restricted during wet periods.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, wetness, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The wetness limitation for dwellings can be reduced by adding fill material, land shaping so that excess surface water is removed, and installing a drainage system.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in the wetter areas.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.

WwD2—Wynott-Wilkes complex, 10 to 15 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Wynott and similar soils: 50 percent

Wilkes and similar soils: 25 percent

Dissimilar soils: 25 percent

Typical Profile

Wynott

Surface layer:

0 to 5 inches—yellowish brown sandy loam

Subsoil:

5 to 10 inches—brown clay that has light yellowish brown lithochromic mottles

10 to 21 inches—yellowish brown clay that has light yellowish brown lithochromic mottles

21 to 29 inches—light olive brown, dark grayish brown, and yellowish brown sandy clay loam

Underlying material:

29 to 80 inches—soft bedrock

Wilkes

Surface layer:

0 to 2 inches—very dark grayish brown sandy loam

Subsurface layer:

2 to 4 inches—brown sandy loam

Subsoil:

4 to 15 inches—yellowish brown sandy clay loam

15 to 18 inches—yellowish brown sandy loam

Underlying material:

18 to 45 inches—soft bedrock

45 inches—hard bedrock

Minor Components

Dissimilar:

- Few small areas of Pacolet, Rion, and Winnsboro soils in landform positions similar to those of the Wynott and Wilkes soils

Similar:

- Small areas of soils that have a more acid subsoil than the Wynott and Wilkes soils

Soil Properties and Qualities

Depth class: Wynott—moderately deep; Wilkes—shallow

Drainage class: Well drained

Slope class: Strongly sloping

Reaction: Wynott—very strongly acid to slightly acid throughout the profile, except where lime has been applied; Wilkes—strongly acid to slightly acid in the upper horizons and moderately acid to slightly alkaline in the lower horizons

Saturated hydraulic conductivity: Wynott—moderately low; Wilkes—moderately high

Available water capacity: Low

Root zone: Wynott—moderately deep; Wilkes—shallow; soils easily penetrated by plant roots

Depth to soft bedrock: Wynott—20 to 40 inches; Wilkes—10 to 20 inches

Runoff: Rapid

Erosion hazard: Wynott—severe; Wilkes—moderate

Shrink-swell potential of subsoil: Wynott—high; Wilkes—moderate

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Wynott—moderately suited to cultivated crops, such as corn, soybeans, and small grains; Wilkes—poorly suited to cultivated crops

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Wynott—moderately suited to tall fescue and ladino clover; Wilkes—poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Low saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.

- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Wynott—moderately suited to openland and woodland wildlife habitat and very poorly suited to wetland wildlife habitat; Wilkes—moderately suited to woodland wildlife habitat, poorly suited to openland wildlife habitat, and very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility, low saturated hydraulic conductivity, bedrock, and droughtiness; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Wynott—well suited to paths and trails, moderately suited to camp areas and picnic areas, and poorly suited to playgrounds; Wilkes—well suited to paths and trails and poorly suited to camp areas, picnic areas, and playgrounds

Management concerns: Bedrock, low saturated hydraulic conductivity, and slope

Management measures and considerations:

- Because of the limited depth to bedrock, there can be considerable expense in designing facilities and structures that function properly.
- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Wynott—poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets; Wilkes—moderately suited to dwellings without basements and poorly suited to septic tank absorption fields and local roads and streets

Management concerns: Shrink-swell, bedrock, low saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.

- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

WwE2—Wynott-Wilkes complex, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Wynott and similar soils: 45 percent

Wilkes and similar soils: 30 percent

Dissimilar soils: 25 percent

Typical Profile

Wynott

Surface layer:

0 to 5 inches—yellowish brown sandy loam

Subsoil:

5 to 10 inches—brown clay that has light yellowish brown lithochromic mottles

10 to 21 inches—yellowish brown clay that has light yellowish brown lithochromic mottles

21 to 29 inches—light olive brown, dark grayish brown, and yellowish brown sandy clay loam

Underlying material:

29 to 80 inches—soft bedrock

Wilkes

Surface layer:

0 to 2 inches—very dark grayish brown sandy loam

Subsurface layer:

2 to 4 inches—brown sandy loam

Subsoil:

4 to 15 inches—yellowish brown sandy clay loam

15 to 18 inches—yellowish brown sandy loam

Underlying material:

18 to 45 inches—soft bedrock

45 inches—hard bedrock

Minor Components

Dissimilar:

- Few small areas of Pacolet, Rion, and Winnsboro soils in landform positions similar to those of the Wynott and Wilkes soils

Similar:

- Small areas of soils that have a more acid subsoil than the Wynott and Wilkes soils

Soil Properties and Qualities

Depth class: Wynott—moderately deep; Wilkes—shallow

Drainage class: Well drained

Slope class: Moderately steep

Reaction: Wynott—very strongly acid to slightly acid throughout the profile, except where lime has been applied; Wilkes—strongly acid to slightly acid in the upper horizons and moderately acid to slightly alkaline in the lower horizons

Saturated hydraulic conductivity: Wynott—moderately low; Wilkes—moderately high

Available water capacity: Low

Root zone: Wynott—moderately deep; Wilkes—shallow; soils easily penetrated by plant roots

Depth to soft bedrock: Wynott—20 to 40 inches; Wilkes—10 to 20 inches

Runoff: Very rapid

Erosion hazard: Severe

Shrink-swell potential of subsoil: Wynott—high; Wilkes—moderate

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Poorly suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Poorly suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Low saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low

air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.

- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Wynott—moderately suited to openland and woodland wildlife habitat and very poorly suited to wetland wildlife habitat; Wilkes—moderately suited to woodland wildlife habitat, poorly suited to openland wildlife habitat, and very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility, low saturated hydraulic conductivity, bedrock, droughtiness, and slope; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management concerns: Bedrock, low saturated hydraulic conductivity, and slope

Management measures and considerations:

- Because of the limited depth to bedrock, there can be considerable expense in designing facilities and structures that function properly.
- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, bedrock, low saturated hydraulic conductivity, low strength, and slope

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- Cutting and filling or modifying the design of the building helps to overcome the slope.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

WyB2—Wynott-Winnsboro complex, 2 to 6 percent slopes, moderately eroded

Setting

Landform position: Broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Wynott and similar soils: 50 percent

Winnsboro and similar soils: 25 percent

Dissimilar soils: 25 percent

Typical Profile

Wynott

Surface layer:

0 to 5 inches—yellowish brown sandy loam

Subsoil:

5 to 10 inches—brown clay that has light yellowish brown lithochromic mottles

10 to 21 inches—yellowish brown clay that has light yellowish brown lithochromic mottles

21 to 29 inches—light olive brown, dark grayish brown, and yellowish brown sandy clay loam

Underlying material:

29 to 80 inches—soft bedrock

Winnsboro

Surface layer:

0 to 4 inches—brown sandy loam

Subsoil:

4 to 17 inches—light olive brown clay

17 to 25 inches—yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has very dark grayish brown and brownish yellow lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has very dark grayish brown and yellow lithochromic mottles

52 to 80 inches—soft bedrock

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, and Mecklenburg soils in landform positions similar to those of the Wynott and Winnsboro soils
- Few small areas of Helena, Bush River, Prosperity, and Sedgefield soils in the slightly lower landform positions

Similar:

- Small areas of soils with overwash
- Small areas of soils that have a more acid subsoil than the Wynott and Winnsboro soils

Soil Properties and Qualities

Depth class: Wynott—moderately deep; Winnsboro—deep

Drainage class: Well drained

Slope class: Gently sloping

Reaction: Wynott—very strongly acid to slightly acid throughout the profile, except where lime has been applied; Winnsboro—strongly acid to slightly acid in the A horizon, except where lime has been applied, and slightly acid to slightly alkaline in the B and C horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: Wynott—low; Winnsboro—moderate

Root zone: Wynott—moderately deep; Winnsboro—deep; soils easily penetrated by plant roots

Depth to soft bedrock: Wynott—20 to 40 inches; Winnsboro—40 to 60 inches

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Pasture and woodland

Other uses: Cropland

Cropland

Suitability: Well suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Well suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Moderately low saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Wynott—moderately suited to openland and woodland wildlife habitat and very poorly suited to wetland wildlife habitat; Winnsboro—well suited to openland and woodland wildlife habitat and very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility, low saturated hydraulic conductivity, and bedrock; wetland—deepness to water

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, bedrock, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The low saturated hydraulic conductivity limitation can be reduced by specially designing a septic system and increasing the size of the absorption area.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.

WyC2—Wynott-Winnsboro complex, 6 to 10 percent slopes, moderately eroded

Setting

Landform position: Narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Wynott and similar soils: 45 percent

Winnsboro and similar soils: 30 percent

Dissimilar soils: 25 percent

Typical Profile

Wynott

Surface layer:

0 to 5 inches—yellowish brown sandy loam

Subsoil:

5 to 10 inches—brown clay that has light yellowish brown lithochromic mottles

10 to 21 inches—yellowish brown clay that has light yellowish brown lithochromic mottles

21 to 29 inches—light olive brown, dark grayish brown, and yellowish brown sandy clay loam

Underlying material:

29 to 80 inches—soft bedrock

Winnsboro

Surface layer:

0 to 4 inches—brown sandy loam

Subsoil:

4 to 17 inches—light olive brown clay

17 to 25 inches—yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has very dark grayish brown and brownish yellow lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has very dark grayish brown and yellow lithochromic mottles

52 to 80 inches—soft bedrock

Minor Components

Dissimilar:

- Few small areas of Cecil, Hard Labor, and Mecklenburg soils in landform positions similar to those of the Wynott and Winnsboro soils
- Few small areas of Helena, Bush River, and Prosperity soils in the slightly lower landform positions

Similar:

- Small areas of soils that have a more acid subsoil than the Wynott and Winnsboro soils

Soil Properties and Qualities

Depth class: Wynott—moderately deep; Winnsboro—deep

Drainage class: Well drained

Slope class: Sloping

Reaction: Wynott—very strongly acid to slightly acid throughout the profile, except where lime has been applied; Winnsboro—strongly acid to slightly acid in the A horizon, except where lime has been applied, and slightly acid to slightly alkaline in the B and C horizons

Saturated hydraulic conductivity: Moderately low

Available water capacity: Wynott—low; Winnsboro—moderate

Root zone: Wynott—moderately deep; Winnsboro—deep; soils easily penetrated by plant roots

Depth to soft bedrock: Wynott—20 to 40 inches; Winnsboro—40 to 60 inches

Runoff: Rapid

Erosion hazard: Moderate

Shrink-swell potential of subsoil: High

Land Use

Dominant uses: Woodland

Other uses: Pasture

Cropland

Suitability: Moderately suited to cultivated crops, such as corn, soybeans, and small grains

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Conservation practices that reduce the hazard of erosion and add organic matter to the soil are needed.

Pasture and hayland

Suitability: Moderately suited to tall fescue and ladino clover

Management concerns: Slope, surface runoff, and susceptibility to erosion

Management measures and considerations:

- Seedbeds should be prepared on the contour or across the slope if possible.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during dry periods help to keep the pasture in good condition.

Woodland

Suitability: Moderately suited to loblolly pine; well suited to yellow-poplar

Management concerns: Moderately low saturated hydraulic conductivity, erosion, rooting depth, and soil compaction

Management measures and considerations:

- These soils have the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour.
- Installing water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing help to minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging operations when the soil is dry.
- Seedling survival rates can be increased by bedding.
- The tables in this report provide specific interpretations.

Wildlife habitat

Suitability: Wynott—moderately suited to openland and woodland wildlife habitat and very poorly suited to wetland wildlife habitat; Winnsboro—well suited to openland and woodland wildlife habitat and very poorly suited to wetland wildlife habitat

Management concerns: Openland and woodland—erodibility, low saturated hydraulic conductivity, and bedrock; wetland—deepness to water and slope

Management measures and considerations:

- The main game species in areas of this map unit are deer, turkey, quail, squirrel, and rabbit.
- Areas of timber regeneration are well suited to quail, dove, and rabbit.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management concerns: Low saturated hydraulic conductivity and slope

Management measures and considerations:

- Surface drains and landscaping are needed to remove rainwater quickly.
- Proper fertilizing, seeding, mulching, and shaping of areas help to establish and maintain plant cover.
- Facilities and structures should be constructed in nearly level areas.

Engineering uses

Suitability: Poorly suited to dwellings without basements, septic tank absorption fields, and local roads and streets

Management concerns: Shrink-swell, bedrock, low saturated hydraulic conductivity, and low strength

Management measures and considerations:

- Reinforcing foundations and backfilling with non-expansive materials help to overcome the shrink-swell limitation.
- The low saturated hydraulic conductivity and slope limitations can be reduced by increasing the size of the absorption field and installing the absorption lines on the contour.
- The shallow placement of filter lines or the use of other alternative systems helps absorption fields to function properly in areas with bedrock.
- Incorporating sand and gravel into the soil and compacting roadbeds help to improve soil strength and overcome the shrink-swell limitation.
- Designing roads on the contour and providing adequate water-control structures, such as culverts, help to maintain road stability.

Soils of the Sumter National Forest in Newberry County

1B—Appling loamy sand, 2 to 7 percent slopes

Setting

Landform position: Gently sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 75 acres

Composition

Appling and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 6 inches—brown loamy sand

Subsoil:

6 to 9 inches—yellowish brown fine sandy loam

9 to 33 inches—yellowish red clay and clay loam that have brown and red lithochromic mottles

33 to 60 inches—yellowish red and reddish yellow sandy clay loam that has red and yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Santuc and Winnsboro soils in the slightly lower landform positions and at the heads of drainageways

Similar:

- Few small areas of Cataula, Cecil, Pacolet, and Rion soils in landform positions similar to those of the Appling soil
- Few small areas of soils that have been eroded
- Few small areas of fine-loamy soils that have a solum more than 40 inches thick
- Few small areas of soils that have many flakes of mica throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: More than 6.0 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit.

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is moderately suited to paths and trails, camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is well suited to dwellings and small commercial buildings and moderately suited to septic tank absorption fields, shallow excavations, and roads and streets.

1C—Appling loamy sand, 7 to 15 percent slopes

Setting

Landform position: Sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 30 acres

Composition

Appling and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 6 inches—brown loamy sand

Subsoil:

6 to 9 inches—yellowish brown fine sandy loam

9 to 33 inches—yellowish red clay and clay loam that have brown and red lithochromic mottles

33 to 60 inches—yellowish red and reddish yellow sandy clay loam that has red and yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Santuc and Winnsboro soils in the slightly lower landform positions and at the heads of drainageways

Similar:

- Few small areas of Cataula, Cecil, Mecklenburg, Pacolet, and Rion soils in landform positions similar to those of the Appling soil
- Few small areas of soils that have been eroded
- Few small areas of fine-loamy soils that have a solum more than 40 inches thick
- Few small areas of soils that have many flakes of mica throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: More than 6.0 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit.

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is moderately suited to paths and trails, camp areas, and picnic areas and poorly suited to playgrounds.

Engineering uses

This soil is moderately suited to dwellings, septic tank absorption fields, shallow excavations, and roads and streets and poorly suited to small commercial buildings.

2B2—Appling sandy clay loam, 2 to 7 percent slopes, moderately eroded

Setting

Landform position: Gently sloping broad and narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 20 acres

Composition

Appling and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 33 inches—yellowish red clay and clay loam that have brown and red lithochromic mottles

33 to 60 inches—yellowish red and reddish yellow sandy clay loam that has red and yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Santuc and Winnsboro soils in the slightly lower landform positions and at the heads of drainageways

Similar:

- Few small areas of Cataula, Cecil, Pacolet, and Rion soils in landform positions similar to those of the Appling soil
- Few small areas of soils that have been eroded
- Few small areas of fine-loamy soils that have a solum more than 40 inches thick
- Few small areas of soils that have many flakes of mica throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: More than 6.0 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.

- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails, camp areas, and picnic areas; moderately suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is well suited to dwellings and small commercial buildings and moderately suited to septic tank absorption fields, shallow excavations, and roads and streets.

2C2—Appling sandy clay loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 30 acres

Composition

Appling and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 33 inches—yellowish red clay and clay loam that have brown and red lithochromic mottles

33 to 60 inches—yellowish red and reddish yellow sandy clay loam that has red and yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Santuc and Winnsboro soils in the slightly lower landform positions and at the heads of drainageways

Similar:

- Few small areas of Cataula, Cecil, Pacolet, and Rion soils in landform positions similar to those of the Appling soil
- Few small areas of soils that have been eroded
- Few small areas of fine-loamy soils that have a solum more than 40 inches thick
- Few small areas of soils that have many flakes of mica throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: More than 6.0 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets.

3B—Buncombe coarse sand, 0 to 3 percent slopes, rarely flooded

Setting

Landform position: Nearly level areas on first bottoms along rivers

Size of areas: About 10 to 40 acres

Composition

Buncombe and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 6 inches—dark yellowish brown coarse sand

Underlying material:

6 to 28 inches—yellowish brown sand that has thin strata of loamy sand

28 to 35 inches—dark yellowish brown sand

35 to 56 inches—pale brown sand

56 to 66 inches—yellowish brown sand

Minor Components

Dissimilar:

- Few small areas of Cartecay, Chenneby, and Shellbluff soils in the lower landform positions and at the heads of drainageways

Similar:

- Few small areas of Toccoa soils in landform positions similar to those of the Buncombe soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Excessively drained

Depth to water table: More than 6.0 feet

Slope class: Nearly level

Saturated hydraulic conductivity: High

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Very low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Flooding and droughtiness

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Poorly suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is poorly suited to paths and trails, camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is moderately suited to roads and streets and poorly suited to dwellings, small commercial buildings, septic tank absorption fields, and shallow excavations.

5A—Cartecay sandy loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform position: Nearly level areas on first bottoms along small to large streams

Size of areas: About 10 to 80 acres

Composition

Cartecay and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—dark brown sandy loam

Underlying material:

4 to 14 inches—brown sandy loam that has grayish brown and pale brown iron depletions

14 to 21 inches—gray sandy loam that has strong brown masses of oxidized iron

21 to 35 inches—strong brown sandy loam that has gray iron depletions

35 to 48 inches—gray fine sandy loam that has strong brown masses of oxidized iron

48 to 60 inches—light yellowish brown coarse sandy loam that has gray iron depletions and strong brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Buncombe and Toccoa soils in the higher areas of the flood plains

Similar:

- Few small areas of Chenneby and Shellbluff soils in landform positions similar to those of the Cartecay soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Somewhat poorly drained

Depth to water table: About 6 to 18 inches

Slope class: Nearly level

Saturated hydraulic conductivity: High

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Very high

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, flooding, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Temporary logging roads may require fill material to eliminate extensive rutting and compaction.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; moderately suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is poorly suited to paths and trails, camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets.

7B—Cataula sandy loam, 2 to 7 percent slopes

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Cataula and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 5 inches—brown sandy loam

Subsoil:

5 to 29 inches—red clay

29 to 37 inches—red clay loam that has brown horizontal clay layers and yellow and brown masses of oxidized iron

37 to 61 inches—red clay loam that has gray iron depletions and brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cataula soil

Similar:

- Few small areas of Appling, Cecil, Hiwassee, and Pacolet soils in landform positions similar to those of the Cataula soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Depth to perched water table: About 24 to 48 inches

Ponding hazard: Occasional for brief periods

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, root restriction, windthrow, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails and moderately suited to camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is well suited to dwellings; moderately suited to small commercial buildings, shallow excavations, and roads and streets; and poorly suited to septic tank absorption fields.

8B2—Cataula sandy clay loam, 2 to 7 percent slopes, moderately eroded

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Cataula and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 29 inches—red clay

29 to 37 inches—red clay loam that has brown horizontal clay layers and yellow and brown masses of oxidized iron

37 to 61 inches—red clay loam that has gray iron depletions and brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cataula soil

Similar:

- Few small areas of Appling, Cecil, Hiwassee, and Pacolet soils in landform positions similar to those of the Cataula soil
- Few small areas of soils that are noneroded
- Few small areas of soils that are severely eroded

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Depth to perched water table: About 24 to 48 inches

Ponding hazard: Occasional for brief periods

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, root restriction, windthrow, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails and moderately suited to camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is well suited to dwellings; moderately suited to small commercial buildings, shallow excavations, and roads and streets; and poorly suited to septic tank absorption fields.

8C2—Cataula sandy clay loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Cataula and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 29 inches—red clay

29 to 37 inches—red clay loam that has brown horizontal clay layers and yellow and brown masses of oxidized iron

37 to 61 inches—red clay loam that has gray iron depletions and brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cataula soil

Similar:

- Few small areas of Appling, Cecil, Hiwassee, and Pacolet soils in landform positions similar to those of the Cataula soil
- Few small areas of soils that are noneroded
- Few small areas of soils that are severely eroded

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Depth to perched water table: About 24 to 48 inches

Ponding hazard: Occasional for brief periods

Slope class: Sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, root restriction, windthrow, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails and moderately suited to camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is well suited to dwellings; moderately suited to small commercial buildings, shallow excavations, and roads and streets; and poorly suited to septic tank absorption fields.

10B—Cecil sandy loam, 2 to 7 percent slopes

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Cecil and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 6 inches—brown sandy loam

Subsoil:

6 to 48 inches—red clay and clay loam

48 to 60 inches—red sandy clay loam

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Appling, Cataula, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Cecil soil
- Few small areas of soils that have been eroded
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails, camp areas, and picnic areas and moderately suited to playgrounds.

Engineering uses

This soil is well suited to dwellings and moderately suited to septic tank absorption fields, small commercial buildings, shallow excavations, and roads and streets.

10C—Cecil sandy loam, 7 to 15 percent slopes

Setting

Landform position: Gently sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 30 acres

Composition

Cecil and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 6 inches—brown sandy loam

Subsoil:

6 to 48 inches—red clay and clay loam

48 to 60 inches—red sandy clay loam

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Appling, Cataula, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Cecil soil
- Few small areas of soils that have been eroded
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit.

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails, moderately suited to camp areas and picnic areas, and poorly suited to playgrounds.

Engineering uses

This soil is moderately suited to dwellings, septic tank absorption fields, small commercial buildings, shallow excavations, and roads and streets.

11B2—Cecil sandy clay loam, 2 to 7 percent slopes, moderately eroded

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 200 acres

Composition

Cecil and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 48 inches—red clay and clay loam

48 to 60 inches—red sandy clay loam

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Appling, Cataula, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Cecil soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas of soils that have many mica flakes throughout the solum
- Few small areas of shallow to deep gullies

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails, camp areas, and picnic areas; moderately suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is well suited to dwellings and moderately suited to septic tank absorption fields, small commercial buildings, shallow excavations, and roads and streets.

11C2—Cecil sandy clay loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 150 acres

Composition

Cecil and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 48 inches—red clay and clay loam

48 to 60 inches—red sandy clay loam

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Appling, Cataula, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Cecil soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas of soils that have many mica flakes throughout the solum
- Few small areas of shallow to deep gullies

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.

- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings, septic tank absorption fields, shallow excavations, and roads and streets and poorly suited to small commercial buildings.

11D2—Cecil sandy clay loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Cecil and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—brown sandy clay loam

Subsoil:

3 to 48 inches—red clay and clay loam

48 to 60 inches—red sandy clay loam

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Appling, Cataula, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Cecil soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas of soils that have many mica flakes throughout the solum
- Few small areas of shallow to deep gullies

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets.

12B3—Cecil clay loam, 2 to 7 percent slopes, severely eroded

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 30 acres

Composition

Cecil and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 1 inch—yellowish red or red clay loam

Subsoil:

1 to 48 inches—red clay and clay loam

48 to 60 inches—red sandy clay loam

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Appling, Cataula, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Cecil soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas of soils that have many mica flakes throughout the solum
- Few small areas of shallow to deep gullies

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Other properties: Poor nutrients, frost heaving, and erosion have caused low productivity; infiltration is limited due to past erosion

Land Use

Woodland

Suitability: Moderately suited to loblolly pine; poorly suited to yellow-poplar and shortleaf pine

Management concerns: Severe erosion, thin surface horizons, and soil compaction; littleleaf disease on shortleaf pine

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of severely eroded conditions and the additional erosion hazards, site preparations such as burning and chopping and other mechanical operations should be avoided if possible.
- Proper site preparation is difficult because of the many shallow and deep gullies.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Soil compaction can be reduced by using ground equipment that has tires with low

air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.

- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to paths and trails, camp areas, picnic areas, and playgrounds

Management measures and considerations:

- The number of gullies and the clayey surface layer make most recreational uses difficult.

Engineering uses

Suitability: Poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets

Management measures and considerations:

- The shallow to deep gullies and the potential for erosion are hazards that are difficult to overcome.

12C3—Cecil clay loam, 7 to 15 percent slopes, severely eroded

Setting

Landform position: Gently sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 30 acres

Composition

Cecil and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 1 inch—yellowish red or red clay loam

Subsoil:

1 to 48 inches—red clay and clay loam

48 to 60 inches—red sandy clay loam

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Santuc, and Winnsboro soils in landform positions similar to those of the Cecil soil

Similar:

- Few small areas of Appling, Cataula, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Cecil soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas of soils that have many mica flakes throughout the solum
- Few small areas of shallow to deep gullies

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Other properties: Poor nutrients, frost heaving, and erosion have caused low productivity; infiltration is limited due to past erosion

Land Use

Woodland

Suitability: Moderately suited to loblolly pine; poorly suited to yellow-poplar and shortleaf pine

Management concerns: Severe erosion, thin surface horizons, and soil compaction; littleleaf disease on shortleaf pine

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of severely eroded conditions and the additional erosion hazards, site preparations such as burning and chopping and other mechanical operations should be avoided if possible.
- Proper site preparation is difficult because of the many shallow and deep gullies.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to paths and trails, camp areas, picnic areas, and playgrounds

Management measures and considerations:

- The number of gullies and the clayey surface layer make most recreational uses difficult.

Engineering uses

Suitability: Poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets

Management measures and considerations:

- The shallow to deep gullies and the potential for erosion are hazards that are difficult to overcome.

13A—Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform position: Nearly level areas on first bottom along medium to large streams

Size of areas: About 10 to 50 acres

Composition

Chenneby and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—dark brown silt loam

Subsoil:

4 to 9 inches—brown silt loam that has brown masses of oxidized iron

9 to 20 inches—dark yellowish brown silt loam that has yellowish brown masses of oxidized iron

20 to 41 inches—dark yellowish brown silty clay loam that has gray iron depletions and brown masses of oxidized iron

Underlying material:

41 to 60 inches—gray clay loam that has yellowish brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Buncombe, Cartecay, and Toccoa soils in landform positions similar to those of the Chenneby soil

Similar:

- Few small areas of Shellbluff soils in landform positions similar to those of the Chenneby soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Somewhat poorly drained

Depth to water table: About 12 to 30 inches

Flooding hazard: Occasional

Slope class: Nearly level

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, flooding, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Temporary logging roads may require fill material to eliminate extensive rutting and compaction.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; moderately suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is moderately suited to paths and trails, picnic areas, and playgrounds and poorly suited to camp areas.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets.

32B2—Hiwassee sandy clay loam, 2 to 7 percent slopes, moderately eroded

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Hiwassee and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—dark reddish brown sandy clay loam

Subsoil:

4 to 55 inches—dark red clay and clay loam

Underlying material:

55 to 66 inches—reddish yellow and dark red clay loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cataula, Mecklenburg, and Winnsboro soils in landform positions similar to those of the Hiwassee soil

Similar:

- Few small areas of Cecil soils in landform positions similar to those of the Hiwassee soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails, camp areas, and picnic areas; moderately suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is well suited to dwellings and small commercial buildings, moderately suited to septic tank absorption fields and roads and streets, and poorly suited to shallow excavations.

32C2—Hiwassee sandy clay loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping medium to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Hiwassee and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—dark reddish brown sandy clay loam

Subsoil:

4 to 55 inches—dark red clay and clay loam

Underlying material:

55 to 66 inches—reddish yellow and dark red clay loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cataula, Mecklenburg, and Winnsboro soils in landform positions similar to those of the Hiwassee soil

Similar:

- Few small areas of Cecil soils in landform positions similar to those of the Hiwassee soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils

- Few small areas that have shallow to deep gullies
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings, small commercial buildings, septic tank absorption fields, and roads and streets and poorly suited to shallow excavations.

40B—Mecklenburg sandy loam, 2 to 7 percent slopes

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Mecklenburg and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy loam

Subsoil:

4 to 35 inches—red clay that has strong brown lithochromic mottles

Underlying material:

35 to 60 inches—red clay loam and loam that have reddish yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Santuc soils in landform positions similar to those of the Mecklenburg soil

Similar:

- Few small areas of Wilkes and Winnsboro soils in landform positions similar to those of the Mecklenburg soil
- Few small areas of eroded soils
- Few small areas of soils that are strongly acid

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Well suited to yellow-poplar; moderately suited to loblolly pine

Management concerns: Erosion, soil compaction, and low saturated hydraulic conductivity

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.

- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails and moderately suited to camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is moderately suited to dwellings, small commercial buildings, and shallow excavations and poorly suited to septic tank absorption fields and roads and streets.

41B2—Mecklenburg sandy clay loam, 2 to 7 percent slopes, moderately eroded

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 75 acres

Composition

Mecklenburg and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 35 inches—red clay that has strong brown lithochromic mottles

Underlying material:

35 to 60 inches—red clay loam and loam that have reddish yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Santuc soils in landform positions similar to those of the Mecklenburg soil

Similar:

- Few small areas of Wilkes and Winnsboro soils in landform positions similar to those of the Mecklenburg soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, soil compaction, and low saturated hydraulic conductivity

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings, small commercial buildings, and shallow excavations and poorly suited to septic tank absorption fields and roads and streets.

41C2—Mecklenburg sandy clay loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 50 acres

Composition

Mecklenburg and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 35 inches—red clay that has strong brown lithochromic mottles

Underlying material:

35 to 60 inches—red clay loam and loam that have reddish yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Santuc soils in landform positions similar to those of the Mecklenburg soil

Similar:

- Few small areas of Wilkes and Winnsboro soils in landform positions similar to those of the Mecklenburg soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, soil compaction, and low saturated hydraulic conductivity

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings and shallow excavations and poorly suited to small commercial buildings, septic tank absorption fields, and roads and streets.

41D2—Mecklenburg sandy clay loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Mecklenburg and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 35 inches—red clay that has strong brown lithochromic mottles

Underlying material:

35 to 60 inches—red clay loam and loam that have reddish yellow lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Santuc soils in landform positions similar to those of the Mecklenburg soil

Similar:

- Few small areas of Wilkes and Winnsboro soils in landform positions similar to those of the Mecklenburg soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, soil compaction, low saturated hydraulic conductivity, and slope

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets.

44C2—Pacolet sandy clay loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 25 acres

Composition

Pacolet and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsoil:

2 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

43 to 60 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg and Winnsboro soils in landform positions similar to those of the Pacolet soil

Similar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Poorly suited to woodland wildlife habitat; very poorly suited to openland and wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings, septic tank absorption fields, shallow excavations, and roads and streets and poorly suited to small commercial buildings.

44D2—Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Pacolet and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsoil:

2 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

43 to 60 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg and Winnsboro soils in landform positions similar to those of the Pacolet soil

Similar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.

- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Very poorly suited to openland, woodland, and wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings, septic tank absorption fields, shallow excavations, and roads and streets and poorly suited to small commercial buildings.

44E2—Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded

Setting

Landform position: Steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Pacolet and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsoil:

2 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

43 to 60 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg and Winnsboro soils in landform positions similar to those of the Pacolet soil

Similar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils

- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Moderately steep

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, soil compaction, and slope

Management measures and considerations:

- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Very poorly suited to openland, woodland, and wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to paths and trails, camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets.

45D3—Pacolet clay loam, 15 to 25 percent slopes, severely eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 30 acres

Composition

Pacolet and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 1 inch—yellowish red clay loam

Subsoil:

1 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

43 to 60 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg and Winnsboro soils in landform positions similar to those of the Pacolet soil

Similar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine; poorly suited to yellow-poplar and shortleaf pine

Management concerns: Erosion, soil compaction, and very thin surface horizons; littleleaf disease in shortleaf pines

Management measures and considerations:

- Because of severely eroded conditions and the potential hazard of erosion, mechanical operations should be avoided if possible.
- Proper site preparation is difficult because of the many shallow to deep gullies.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Very poorly suited to openland, woodland, and wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- The amount of gullies and the clayey surface layer make most recreational uses difficult.

Engineering uses

Suitability: Poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets

Management measures and considerations:

- The shallow to deep gullies and the potential for erosion are hazards that are difficult to overcome.

45E3—Pacolet clay loam, 25 to 50 percent slopes, severely eroded

Setting

Landform position: Steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 30 acres

Composition

Pacolet and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 1 inch—yellowish red clay loam

Subsoil:

1 to 15 inches—red clay

15 to 43 inches—red clay loam that has strong brown lithochromic mottles

43 to 60 inches—red loam that has strong brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg and Winnsboro soils in landform positions similar to those of the Pacolet soil

Similar:

- Few small areas of Appling, Cataula, Cecil, Hiwassee, and Rion soils in landform positions similar to those of the Pacolet soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have many mica flakes throughout the solum

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Moderately steep

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine; poorly suited to yellow-poplar and shortleaf pine

Management concerns: Erosion, soil compaction, and very thin surface horizons; littleleaf disease in shortleaf pines

Management measures and considerations:

- Because of severely eroded conditions and the potential hazard of erosion, mechanical operations should be avoided if possible.
- Proper site preparation is difficult because of the many shallow to deep gullies.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Very poorly suited to openland, woodland, and wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to paths and trails, camp areas, picnic areas, and playgrounds

Management measures and considerations:

- The amount of gullies and the clayey surface layer make most recreational uses difficult.

Engineering uses

Suitability: Poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets

Management measures and considerations:

- The shallow to deep gullies and the potential for erosion are hazards that are difficult to overcome.

47C2—Rion sandy loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Rion and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 35 inches—strong brown and yellowish brown sandy clay loam that has reddish yellow lithochromic mottles

Underlying material:

35 to 60 inches—yellowish brown and dark brown sandy loam that has brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Wilkes, and Winnsboro soils in landform positions similar to those of the Rion soil

Similar:

- Few small areas of Appling, Cecil, Hiwassee, Pacolet, and Santuc soils in landform positions similar to those of the Rion soil

- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have a solum more than 40 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings, shallow excavations, and local roads and streets and poorly suited to septic tank absorption fields and small commercial buildings.

47D2—Rion sandy loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Rion and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 35 inches—strong brown and yellowish brown sandy clay loam that has reddish yellow lithochromic mottles

Underlying material:

35 to 60 inches—yellowish brown and dark brown sandy loam that has brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Wilkes, and Winnsboro soils in landform positions similar to those of the Rion soil

Similar:

- Few small areas of Appling, Cecil, Hiwassee, Pacolet, and Santuc soils in landform positions similar to those of the Rion soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have a solum more than 40 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Erosion and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and local roads and streets.

47E2—Rion sandy loam, 25 to 50 percent slopes, moderately eroded

Setting

Landform position: Steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Rion and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy loam

Subsurface layer:

2 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 35 inches—strong brown and yellowish brown sandy clay loam that has reddish yellow lithochromic mottles

Underlying material:

35 to 60 inches—yellowish brown and dark brown sandy loam that has brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Wilkes, and Winnsboro soils in landform positions similar to those of the Rion soil

Similar:

- Few small areas of Appling, Cecil, Hiwassee, Pacolet, and Santuc soils in landform positions similar to those of the Rion soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have a solum more than 40 inches thick
- Few small areas of soils that have many mica flakes
- Few small areas of fine-loamy soils that have base saturation greater than 35 percent

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Moderately steep

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, soil compaction, and slope

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.

- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Poorly suited to paths and trails, camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and local roads and streets.

48D3—Rion sandy clay loam, 15 to 25 percent slopes, severely eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 30 acres

Composition

Rion and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 1 inch—brown sandy clay loam

Subsurface layer:

1 to 4 inches—yellowish brown sandy loam

Subsoil:

4 to 20 inches—yellowish brown sandy clay loam

20 to 35 inches—strong brown and yellowish brown sandy clay loam that has reddish yellow lithochromic mottles

Underlying material:

35 to 60 inches—yellowish brown and dark brown sandy loam that has brown lithochromic mottles

Minor Components

Dissimilar:

- Few small areas of Mecklenburg, Wilkes, and Winnsboro soils in landform positions similar to those of the Rion soil

Similar:

- Few small areas of Appling, Cecil, Hiwassee, Pacolet, and Santuc soils in landform positions similar to those of the Rion soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have a solum more than 40 inches thick
- Few small areas of soils that have many mica flakes

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Moderately suited to loblolly pine; poorly suited to yellow-poplar and shortleaf pine

Management concerns: Erosion, soil compaction, and very thin surface horizons; littleleaf disease in shortleaf pines

Management measures and considerations:

- Because of severely eroded conditions and the additional erosion hazards, site preparations such as burning and chopping and other mechanical operations should be avoided if possible.
- Site preparation is difficult because of many shallow and deep gullies.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- The amount of gullies and the clayey surface layer make most recreational uses difficult.

Engineering uses

Suitability: Poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and local roads and streets

Management measures and considerations:

- The shallow to deep gullies and the potential for erosion are hazards that are difficult to overcome.

28B—Santuc loamy coarse sand, 2 to 7 percent slopes

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 100 acres

Composition

Santuc and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—dark grayish brown loamy coarse sand

Subsurface layer:

3 to 9 inches—brown sandy loam

Subsoil:

9 to 14 inches—yellowish brown sandy clay loam

14 to 26 inches—yellowish brown sandy clay loam that has red and yellow masses of oxidized iron

26 to 41 inches—brownish yellow clay loam that has gray iron depletions and yellow masses of oxidized iron

Underlying material:

41 to 60 inches—yellow and very pale brown loam and sandy loam that have gray iron depletions and yellow and brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Hiwassee, and Winnsboro soils in slightly higher landform positions

Similar:

- Few small areas of Appling and Cataula soils in landform positions similar to those of the Santuc soil
- Few small areas of eroded soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Depth to perched water table: About 18 to 36 inches

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- Because of wetness, logging operations should be scheduled during dry periods.
- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity and wetness, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is moderately suited to paths and trails, camp areas, picnic areas, and playgrounds.

Engineering uses

This soil is moderately suited to dwellings, small commercial buildings, and roads and streets and poorly suited to septic tank absorption fields and shallow excavations.

28C—Santuc loamy coarse sand, 7 to 15 percent slopes

Setting

Landform position: Gently sloping to strongly sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Santuc and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 3 inches—dark grayish brown loamy coarse sand

Subsurface layer:

3 to 9 inches—brown sandy loam

Subsoil:

9 to 14 inches—yellowish brown sandy clay loam

14 to 26 inches—yellowish brown sandy clay loam that has red and yellow masses of oxidized iron

26 to 41 inches—brownish yellow clay loam that has gray iron depletions and yellow masses of oxidized iron

Underlying material:

41 to 60 inches—yellow and very pale brown loam and sandy loam that have gray iron depletions and yellow and brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Cecil, Hiwassee, Pacolet, Rion, and Winnsboro soils in slightly higher landform positions

Similar:

- Few small areas of Appling and Cataula soils in landform positions similar to those of the Santuc soil
- Few small areas of eroded soils
- Few small areas of fine-loamy soils that have a solum more than 40 inches thick

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Depth to perched water table: About 18 to 36 inches

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Because of wetness, logging operations should be scheduled during dry periods.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity and wetness, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is moderately suited to paths and trails, camp areas, and picnic areas and poorly suited to playgrounds.

Engineering uses

This soil is moderately suited to dwellings and roads and streets and poorly suited to small commercial buildings, septic tank absorption fields, and shallow excavations.

15A—Shellbluff silty clay loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform position: Nearly level areas on first bottoms along streams

Size of areas: About 10 to 300 acres

Composition

Shellbluff and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown silty clay loam

Subsoil:

4 to 44 inches—brown and dark brown silty clay loam that has grayish brown iron depletions and yellowish brown masses of oxidized iron

Underlying material:

44 to 60 inches—brown silty clay loam that has grayish brown iron depletions and yellowish brown masses of oxidized iron

60 to 66 inches—gray silty clay loam that has brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Buncombe and Cartecay soils in landform positions similar to those of the Shellbluff soil

Similar:

- Few small areas of Chenneby and Toccoa soils in landform positions similar to those of the Shellbluff soil

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Moderately well drained

Depth to water table: About 30 to 60 inches

Flooding hazard: Occasional

Slope class: Nearly level

Saturated hydraulic conductivity: Moderately high

Available water capacity: High

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Wetness, flooding, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Temporary logging roads may require fill material to eliminate extensive rutting and compaction.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails and picnic areas, moderately suited to playgrounds, and poorly suited to camp areas.

Engineering uses

This soil is moderately suited to shallow excavations and poorly suited to dwellings, small commercial buildings, septic tank absorption fields, and roads and streets.

**49A—Toccoa sandy loam, 0 to 2 percent slopes,
occasionally flooded**

Setting

Landform position: Nearly level areas on first bottoms along small to large streams

Size of areas: About 40 to 300 acres

Composition

Toccoa and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—dark grayish brown loam

Underlying material:

2 to 17 inches—yellowish red sandy loam

17 to 24 inches—strong brown sandy loam

24 to 42 inches—brown sandy loam that has strong brown masses of oxidized iron

42 to 60 inches—brown and light grayish brown loam that has dark brown masses of oxidized iron

Minor Components

Dissimilar:

- Few small areas of Buncombe and Cartecay soils in landform positions similar to those of the Toccoa soil

Similar:

- Few small areas of Chenneby and Shellbluff soils in landform positions similar to those of the Toccoa soil
- Few small areas of soils that have a buried argillic horizon

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: About 30 to 60 inches

Slope class: Strongly sloping

Saturated hydraulic conductivity: High

Available water capacity: Moderate

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Very low

Erosion hazard: Slight

Shrink-swell potential of subsoil: Low

Land Use

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

Management concerns: Flooding and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size; it has the highest yields of any of the soils in the survey area.
- Burning and chopping are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Temporary logging roads may require fill material to eliminate extensive rutting and compaction.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails and picnic areas, moderately suited to playgrounds, and poorly suited to camp areas.

Engineering uses

This soil is moderately suited to shallow excavations and poorly suited to dwellings, small commercial buildings, septic tank absorption fields, and roads and streets.

50E—Udorthents, 5 to 30 percent slopes

Setting

Landform position: Gently sloping to steep areas that were previously gullied and that have been reclaimed by extensive grading

Size of areas: About 10 to 100 acres

Composition

Udorthents and similar soils: 95 percent

Dissimilar soils: 5 percent

Description

These well drained, gently sloping to steep soils are in areas that were formally gullied and that have been reclaimed by extensive grading. The graded material ranges from about 6 inches thick to several feet thick. This map unit is comprised of several soils. The dominant soils are Cecil and Pacolet soils. Because of the variations

in the depth of the cuts and fills and the different soil types, all interpretations must be done on site.

Minor Components

Dissimilar:

- Few small areas of Cecil, Cataula, Pacolet, Rion, and Wilkes soils

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Gently sloping to moderately steep

Saturated hydraulic conductivity: Moderately low to moderately high

Available water capacity: Moderate

Root zone: Deep; soils easily penetrated by plant roots

Runoff: Medium or high

Erosion hazard: Severe

Shrink-swell potential of subsoil: Low to high

Land Use

Woodland

Suitability: Moderately suited to loblolly pine; poorly suited to yellow-poplar

Management concerns: Poor nutrition, frost heaving, erosion, and soil compaction

Management measures and considerations:

- Poor nutrition can be minimized by fertilizing.
- Frost heaving can be minimized by keeping the soil vegetated.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, and rabbit

Management measures and considerations:

- Fertilizing and seeding legumes are useful in maintaining and improving wildlife habitat.

Recreational uses

These soils are moderately suited to paths and trails and poorly suited to camp areas, picnic areas, and playgrounds.

Engineering uses

These soils are poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and roads and streets.

60C2—Wilkes sandy loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 25 acres

Composition

Wilkes and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsurface layer:

2 to 4 inches—brown coarse sandy loam

Subsoil:

4 to 15 inches—yellowish brown sandy clay loam

Underlying material:

15 to 45 inches—yellowish brown saprolite that crushes to coarse sand

Bedrock:

45 inches—hard bedrock

Minor Components

Dissimilar:

- Few small areas of Cecil, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Wilkes soil

Similar:

- Few small areas of Mecklenburg and Winnsboro soils in landform positions similar to those of the Wilkes soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have Cr horizons at a depth of more than 20 inches
- Few small areas of soils that have many mica flakes

Soil Properties and Qualities

Depth class: Shallow

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Very low

Root zone: Shallow; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Slight

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, soil depth, droughtiness, and soil compaction

Management measures and considerations:

- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to dwellings and local roads and streets and poorly suited to small commercial buildings, septic tank absorption fields, and shallow excavations.

60D2—Wilkes sandy loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 40 acres

Composition

Wilkes and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 2 inches—brown sandy clay loam

Subsurface layer:

2 to 4 inches—brown coarse sandy loam

Subsoil:

4 to 15 inches—yellowish brown sandy clay loam

Underlying material:

15 to 45 inches—yellowish brown saprolite that crushes to coarse sand

Bedrock:

45 inches—hard bedrock

Minor Components

Dissimilar:

- Few small areas of Cecil, Hiwassee, Pacolet, and Rion soils in landform positions similar to those of the Wilkes soil

Similar:

- Few small areas of Mecklenburg and Winnsboro soils in landform positions similar to those of the Wilkes soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas that have shallow to deep gullies
- Few small areas of soils that have Cr horizons at a depth of more than 20 inches
- Few small areas of soils that have many mica flakes

Soil Properties and Qualities

Depth class: Shallow

Drainage class: Well drained

Depth to perched water table: More than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately high

Available water capacity: Very low

Root zone: Shallow; soil easily penetrated by plant roots

Runoff: Very high

Erosion hazard: Slight

Shrink-swell potential of subsoil: Moderate

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Erosion, soil depth, droughtiness, and soil compaction

Management measures and considerations:

- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and local roads and streets.

22B—Winnsboro sandy loam, 2 to 7 percent slopes

Setting

Landform position: Gently sloping broad to narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Winnsboro and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 5 inches—brown sandy loam

Subsoil:

5 to 25 inches—olive brown and yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has grayish and yellowish lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has grayish and yellowish lithochromic mottles

52 to 60 inches—yellowish brown saprolite that crushes to coarse sandy loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cecil, and Hiwassee soils in landform positions similar to those of the Winnsboro soil

Similar:

- Few small areas of Mecklenburg and Wilkes soils in landform positions similar to those of the Winnsboro soil
- Few small areas of eroded soils
- Few small areas of overwash soils

- Few small areas of soils that are moderately acid or strongly acid in the lower horizons
- Few small areas of soils that have base saturation less than 60 percent

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: High

Land Use

Woodland

Suitability: Well suited to yellow-poplar; moderately suited to loblolly pine

Management concerns: Low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Engineering uses

Suitability: Moderately suited to shallow excavations; poorly suited to dwellings, small commercial buildings, septic tank absorption fields, and local roads and streets

22C—Winnsboro sandy loam, 7 to 15 percent slopes

Setting

Landform position: Gently sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 20 acres

Composition

Winnsboro and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 5 inches—brown sandy loam

Subsoil:

5 to 25 inches—olive brown and yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has grayish and yellowish lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has grayish and yellowish lithochromic mottles

52 to 60 inches—yellowish brown saprolite that crushes to coarse sandy loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cecil, and Hiwassee soils in landform positions similar to those of the Winnsboro soil

Similar:

- Few small areas of Mecklenburg and Wilkes soils in landform positions similar to those of the Winnsboro soil
- Few small areas of eroded soils
- Few small areas of overwash soils
- Few small areas of soils that are moderately acid or strongly acid in the lower horizons
- Few small areas of soils that have base saturation less than 60 percent

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Medium

Erosion hazard: Slight

Shrink-swell potential of subsoil: High

Land Use

Woodland

Suitability: Well suited to yellow-poplar; moderately suited to loblolly pine

Management concerns: Low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Well suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

This soil is well suited to paths and trails, moderately suited to camp areas and picnic areas, and poorly suited to playgrounds.

Engineering uses

This soil is moderately suited to shallow excavations and poorly suited to dwellings, small commercial buildings, septic tank absorption fields, and local roads and streets.

23B2—Winnsboro sandy clay loam, 2 to 7 percent slopes, moderately eroded

Landform position: Gently sloping narrow to broad ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 150 acres

Composition

Winnsboro and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 25 inches—olive brown and yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has grayish and yellowish lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has grayish and yellowish lithochromic mottles

52 to 60 inches—yellowish brown saprolite that crushes to coarse sandy loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cecil, and Hiwassee soils in landform positions similar to those of the Winnsboro soil

Similar:

- Few small areas of Mecklenburg and Wilkes soils in landform positions similar to those of the Winnsboro soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas with shallow to deep gullies
- Few small areas of soils that are moderately acid or strongly acid in the lower horizons
- Few small areas of soils that have base saturation less than 60 percent

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Gently sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: Low

Erosion hazard: Slight

Shrink-swell potential of subsoil: High

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to shallow excavations and poorly suited to dwellings, small commercial buildings, septic tank absorption fields, and local roads and streets.

23C2—Winnsboro sandy clay loam, 7 to 15 percent slopes, moderately eroded

Setting

Landform position: Gently sloping to strongly sloping narrow ridges and side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 5 to 100 acres

Composition

Winnsboro and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 25 inches—olive brown and yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has grayish and yellowish lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has grayish and yellowish lithochromic mottles

52 to 60 inches—yellowish brown saprolite that crushes to coarse sandy loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cecil, and Hiwassee soils in landform positions similar to those of the Winnsboro soil

Similar:

- Few small areas of Mecklenburg and Wilkes soils in landform positions similar to those of the Winnsboro soil
- Few small areas of noneroded soils

- Few small areas of severely eroded soils
- Few small areas with shallow to deep gullies
- Few small areas of soils that are moderately acid or strongly acid in the lower horizons
- Few small areas of soils that have base saturation less than 60 percent

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Slight

Shrink-swell potential of subsoil: High

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Low saturated hydraulic conductivity, erosion, and soil compaction

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to openland and woodland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Well suited to paths and trails; moderately suited to camp areas and picnic areas; poorly suited to playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is moderately suited to shallow excavations and poorly suited to dwellings, small commercial buildings, septic tank absorption fields, and local roads and streets.

23D2—Winnsboro sandy clay loam, 15 to 25 percent slopes, moderately eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 75 acres

Composition

Winnsboro and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 25 inches—olive brown and yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has grayish and yellowish lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has grayish and yellowish lithochromic mottles

52 to 60 inches—yellowish brown saprolite that crushes to coarse sandy loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cecil, and Hiwassee soils in landform positions similar to those of the Winnsboro soil

Similar:

- Few small areas of Mecklenburg and Wilkes soils in landform positions similar to those of the Winnsboro soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas with shallow to deep gullies
- Few small areas of soils that are moderately acid or strongly acid in the lower horizons
- Few small areas of soils that have base saturation less than 60 percent

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: High

Land Use

Woodland

Suitability: Moderately suited to loblolly pine and yellow-poplar

Management concerns: Low saturated hydraulic conductivity, erosion, soil compaction, and slope

Management measures and considerations:

- This soil has the potential for producing high-quality trees of sawtimber size.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Burning, chopping, and KG blading are acceptable methods of site preparation.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- Gullies should be avoided for all recreational activities.

Engineering uses

This soil is poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and local roads and streets.

24D3—Winnsboro sandy clay loam, 15 to 25 slopes, severely eroded

Setting

Landform position: Moderately steep side slopes adjacent to drainageways; slopes generally are smooth and convex

Size of areas: About 10 to 50 acres

Composition

Winnsboro and similar soils: 95 percent

Dissimilar soils: 5 percent

Typical Profile

Surface layer:

0 to 4 inches—brown sandy clay loam

Subsoil:

4 to 25 inches—olive brown and yellowish brown clay

25 to 32 inches—yellowish brown sandy clay loam that has grayish and yellowish lithochromic mottles

Underlying material:

32 to 52 inches—yellowish brown sandy loam that has grayish and yellowish lithochromic mottles

52 to 60 inches—yellowish brown saprolite that crushes to coarse sandy loam

Minor Components

Dissimilar:

- Few small areas of Appling, Cecil, and Hiwassee soils in landform positions similar to those of the Winnsboro soil

Similar:

- Few small areas of Mecklenburg and Wilkes soils in landform positions similar to those of the Winnsboro soil
- Few small areas of noneroded soils
- Few small areas of severely eroded soils
- Few small areas with shallow to deep gullies
- Few small areas of soils that are moderately acid or strongly acid in the lower horizons
- Few small areas of soils that have base saturation less than 60 percent

Soil Properties and Qualities

Depth class: Very deep

Drainage class: Well drained

Depth to water table: Greater than 6 feet

Slope class: Strongly sloping

Saturated hydraulic conductivity: Moderately low

Available water capacity: Low

Root zone: Very deep; soil easily penetrated by plant roots

Runoff: High

Erosion hazard: Moderate

Shrink-swell potential of subsoil: High

Land Use

Woodland

Suitability: Poorly suited to loblolly pine, yellow-poplar, and shortleaf pine

Management concerns: Low saturated hydraulic conductivity, erosion, soil compaction, and slope; littleleaf disease in shortleaf pines

Management measures and considerations:

- Because of severely eroded conditions and the additional erosion hazards, site preparations such as burning and chopping and other mechanical operations should be avoided if possible.

- Site preparation is difficult because of many shallow and deep gullies.
- Erosion can be minimized by the use of harvesting methods that least disturb the soil, such as placing skid trails, log landings, and temporary logging roads on adequate grades that do not lead to drainageways.
- All fire lines should be placed on the contour; using water bars and seeding, mulching, and fertilizing all fire lines immediately after plowing also minimize erosion.
- Soil compaction can be reduced by using ground equipment that has tires with low air pressure, planning and laying out skid trails prior to harvesting timber, and performing site preparation and logging practices when the soil is dry.
- Seedling survival, which can be a problem because of the low saturated hydraulic conductivity of the soil, can be increased by bedding.
- All standards and guidelines listed in the Forest Land Management Plan should be followed to ensure forest resources are protected and enhanced.

Wildlife habitat

Suitability: Moderately suited to woodland wildlife habitat; poorly suited to openland wildlife habitat; very poorly suited to wetland wildlife habitat

Main game species: Deer, turkey, quail, squirrel, and rabbit

Management measures and considerations:

- Quail, dove, and rabbit thrive in areas of timber regeneration.
- Prescribed burning, fertilizing, and seeding legumes help to maintain and improve wildlife habitat.

Recreational uses

Suitability: Moderately suited to paths and trails; poorly suited to camp areas, picnic areas, and playgrounds

Management measures and considerations:

- The amount of gullies and the clayey surface layer make most recreational uses difficult.

Engineering uses

Suitability: Poorly suited to dwellings, small commercial buildings, septic tank absorption fields, shallow excavations, and local roads and streets

Management measures and considerations:

- The shallow to deep gullies and the potential for erosion are hazards that are difficult to overcome.

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for agricultural waste management; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of gravel, sand, reclamation material, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited*, *somewhat limited*, and *very limited*. The suitability ratings are expressed as *well suited*, *moderately suited*, *poorly suited*, and *unsuited* or as *good*, *fair*, and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate

gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, and the system of land capability classification used by the Natural Resources Conservation Service is explained.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units." Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 5. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the yields table are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in

grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (21).

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e*, *w*, or *s*, to the class numeral, for example, 2*e*. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); and *s* shows that the soil is limited mainly because it is shallow, droughty, or stony.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w* or *s* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

The capability classification of the soils in this survey area is given in the section “Detailed Soil Map Units” and in the yields table.

Prime Farmland and Other Important Farmlands

Table 6 lists the map units in the survey area that are considered prime farmland and farmland of statewide importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation’s food supply.

Prime farmland is of major importance in meeting the Nation’s short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government,

as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

For some soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

In some areas, land that does not meet the criteria for prime farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

Agricultural Waste Management

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

Table 7, parts I, II, and III, show the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of this table, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage

ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

The ratings in the table are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater, rapid infiltration of wastewater, and slow rate treatment of wastewater).

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Application of manure and food-processing waste not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy

metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, saturated hydraulic conductivity (K_{sat}), slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

Overland flow of wastewater is a process in which wastewater is applied to the upper reaches of sloped land and allowed to flow across vegetated surfaces, sometimes called terraces, to runoff-collection ditches. The length of the run generally is 150 to 300 feet. The application rate ranges from 2.5 to 16.0 inches per week. It commonly exceeds the rate needed for irrigation of cropland. The wastewater leaves solids and nutrients on the vegetated surfaces as it flows downslope in a thin film. Most of the water reaches the collection ditch, some is lost through evapotranspiration, and a small amount may percolate to the ground water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, and the design and construction of the system. Reaction and the cation-exchange capacity affect absorption. Reaction, salinity, and the sodium adsorption ratio affect plant growth and microbial activity. Slope, saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, flooding, depth to bedrock or a cemented pan, stones, and cobbles affect design and construction. Permanently frozen soils are unsuitable for waste treatment.

Rapid infiltration of wastewater is a process in which wastewater applied in a level basin at a rate of 4 to 120 inches per week percolates through the soil. The wastewater may eventually reach the ground water. The application rate commonly exceeds the rate needed for irrigation of cropland. Vegetation is not a necessary part of the treatment; hence, the basins may or may not be vegetated. The thickness of the soil material needed for proper treatment of the wastewater is more than 72 inches. As a result, geologic and hydrologic investigation is needed to ensure proper design and performance and to determine the risk of ground-water pollution.

The ratings in the table are based on the soil properties that affect the risk of pollution and the design, construction, and performance of the system. Depth to a

water table, ponding, flooding, and depth to bedrock or a cemented pan affect the risk of pollution and the design and construction of the system. Slope, stones, and cobbles also affect design and construction. Saturated hydraulic conductivity (K_{sat}) and reaction affect performance. Permanently frozen soils are unsuitable for waste treatment.

Slow rate treatment of wastewater is a process in which wastewater is applied to land at a rate normally between 0.5 inch and 4.0 inches per week. The application rate commonly exceeds the rate needed for irrigation of cropland. The applied wastewater is treated as it moves through the soil. Much of the treated water may percolate to the ground water, and some enters the atmosphere through evapotranspiration. The applied water generally is not allowed to run off the surface. Waterlogging is prevented either through control of the application rate or through the use of tile drains, or both.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, and the application of waste. The properties that affect absorption include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, saturated hydraulic conductivity (K_{sat}), depth to bedrock or a cemented pan, reaction, the cation-exchange capacity, and slope. Reaction, the sodium adsorption ratio, salinity, and bulk density affect plant growth and microbial activity. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Forestland Productivity and Management

The tables described in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forestland management.

Forestland Productivity

In table 8, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the "National Forestry Manual" (15), which is available at the local office of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

In table 9, parts I through V, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified aspect of forestland management. *Well suited* indicates that the soil has

features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified management aspect or that extreme measures are needed to overcome the undesirable soil properties.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for fire damage and seedling mortality are expressed as *low*, *moderate*, and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for fire damage or seedling mortality is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual" (15), which is available at the local office of the Natural Resources Conservation Service or on the Internet.

For *limitations affecting construction of haul roads and log landings*, the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. The limitations are described as slight, moderate, or severe. A rating of *slight* indicates that no significant limitations affect construction activities, *moderate* indicates that one or more limitations can cause some difficulty in construction, and *severe* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *soil rutting hazard* are based on depth to a water table, rock fragments on or below the surface, the Unified classification, depth to a restrictive layer, and slope. Ruts form as a result of the operation of forest equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Ratings in the column *hazard of off-road or off-trail erosion* are based on slope and on soil erosion factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance. The hazard is described as slight, moderate, severe, or very severe. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Ratings in the column *hazard of erosion on roads and trails* are based on the soil

erosion factor K, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that little or no erosion is likely; *moderate* indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and *severe* indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Ratings in the column *suitability for roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the columns *suitability for hand planting* and *suitability for mechanical planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately suited, poorly suited, or unsuited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *suitability for use of harvesting equipment* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the column *suitability for mechanical site preparation (surface)* are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 1 foot is considered in the ratings.

Ratings in the column *suitability for mechanical site preparation (deep)* are based on slope, depth to a restrictive layer, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 3 feet is considered in the ratings.

Ratings in the column *potential for damage to soil by fire* are based on texture of the surface layer, content of rock fragments and organic matter in the surface layer, thickness of the surface layer, and slope. The soils are described as having a low, moderate, or high potential for this kind of damage. The ratings indicate an evaluation of the potential impact of prescribed fires or wildfires that are intense enough to remove the duff layer and consume organic matter in the surface layer.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, reaction, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality.

Recreational Development

In table 10, parts I and II, the soils of the survey area are rated according to limitations that affect their suitability for recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates

that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the table are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information in this survey, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (K_{sat}), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (K_{sat}), and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (K_{sat}), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (K_{sat}), and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer,

depth to a water table, ponding, flooding, saturated hydraulic conductivity (K_{sat}), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (K_{sat}), and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Wildlife Habitat

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting the appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In table 11, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope,

surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, wheat, oats, and barley.

Grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are fescue, lovegrass, bromegrass, clover, and alfalfa.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are bluestem, goldenrod, beggarweed, wheatgrass, and grama.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, poplar, cherry, sweetgum, apple, hawthorn, dogwood, hickory, blackberry, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated *good* are Russian-olive, autumn olive, and crabapple.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, cedar, and juniper.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, slope, and surface stoniness. Examples of wetland plants are smartweed, wild millet, wildrice, cordgrass, rushes, sedges, and reeds.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and saturated hydraulic conductivity (K_{sat}). Examples of shallow water areas are waterfowl feeding areas and ponds.

The habitat for various kinds of wildlife is described in the following paragraphs.

Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. Wildlife attracted to these areas include bobwhite quail, pheasant, meadowlark, field sparrow, cottontail, and red fox.

Habitat for woodland wildlife consists of areas of deciduous and/or coniferous plants and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include wild turkey, ruffed grouse, woodcock, thrushes, woodpeckers, squirrels, gray fox, raccoon, deer, and bear.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, and beaver.

Hydric Soils

This section lists the map units that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (6, 8).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (3, 8, 12, 13). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (4). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (5). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (17) and "Keys to Soil Taxonomy" (18) and in the "Soil Survey Manual" (22).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (6).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The following map units meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (6, 8).

CyA Chenneby silt loam, 0 to 2 percent slopes, ponded
WoA Worsham loam, 0 to 2 percent slopes

The following map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

CcA Cartecay sandy loam, 0 to 2 percent slopes, frequently flooded
CnA Chenneby silt loam, 0 to 2 percent slopes, frequently flooded
5A Cartecay sandy loam, 0 to 2 percent slopes, occasionally flooded
13A Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading "Soil Properties."

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, saturated hydraulic conductivity (K_{sat}), corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, reclamation material, roadfill, and topsoil; plan structures for water management; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Table 12, parts I and II, show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building

site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the

amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; and the available water capacity in the upper 40 inches. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Table 13, parts I and II, show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 72 inches or between a depth of 24 inches and a restrictive layer is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Saturated hydraulic conductivity (K_{sat}) is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a K_{sat} rate of more than 14 micrometers per second are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include saturated hydraulic conductivity (K_{sat}), depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, and soil reaction. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If the downward movement of water through the soil profile is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid

waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, and reaction.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not be too acid.

Construction Materials

Table 14, parts I and II, give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Gravel and *sand* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 14, part I, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good*, *fair*, or *poor* as potential sources of sand and gravel. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

In table 14, part II, the rating class terms are *good*, *fair*, and *poor*. The features that limit the soils as sources of these materials are specified in the table. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, and topsoil. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Table 15 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the saturated hydraulic conductivity (K_{sat}) of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against

overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of 5 or 6 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering properties, physical and chemical properties, and pertinent soil and water features.

Engineering Properties

Table 16 gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (2) and the system adopted by the American Association of State Highway and Transportation Officials (1).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional

refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

Physical Soil Properties

Table 17 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (K_{sat}), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $1/3$ - or $1/10$ -bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2

millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (K_{sat}) refers to the ability of a soil to transmit water or air. The estimates in the table indicate the rate of water movement, in micrometers per second, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (K_{sat}) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $1/3$ - or $1/10$ -bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (K_w and K_f) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (K_{sat}). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor K_w indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor K_f indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion

by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook" (16), which is available at the local office of the Natural Resources Conservation Service or on the Internet.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Soil Properties

Table 18 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Water Features

Table 19 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils

of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The table indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of

flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 20 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, and dense layers. The table indicates the hardness of the restrictive layer, which significantly affects the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (K_{sat}), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low*, *moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low*, *moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (17, 18). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 21 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Alfisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalf (*Ud*, meaning humid, plus *alf*, from Alfisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalf*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine, mixed, active, thermic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil, that is typical of the series in

the survey area is described. The detailed description of each soil horizon follows standards in the "Soil Survey Manual" (22) and in the "Field Book for Describing and Sampling Soils" (11). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" (17) and in "Keys to Soil Taxonomy" (18). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Soils of Newberry County, Excluding the Sumter National Forest

Altavista Series

Depth class: Very deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Alluvium

Landform: Stream terraces

Slope range: 2 to 6 percent

Taxonomic class: Fine-loamy, mixed, semiactive, thermic Aquic Hapludults

Associated Soils

- Hiwassee soils, which are dark red and have more clay in the particle-size control section than the Altavista soils

Typical Pedon

Altavista sandy loam, 2 to 6 percent slopes; Newberry County, South Carolina; about 2.0 miles southwest of Chappells from the junction of South Carolina Highway 34 and South Carolina Highway 39, west on South Carolina Highway 34 for 2.01 miles, south on a gated dirt road for 0.36 mile, northeast on an old railroad bed for 1,125 feet, about 340 degrees northwest for 225 feet; USGS topographic quadrangle, Dyson, SC (1971); lat. 34 degrees 09 minutes 34 seconds N. and long. 81 degrees 53 minutes 29 seconds W.

- A—0 to 2 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; strongly acid; clear smooth boundary.
- E—2 to 5 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; common fine and medium and few coarse roots throughout; strongly acid; clear smooth boundary.
- BE—5 to 15 inches; yellowish brown (10YR 5/6) sandy loam; moderate medium granular structure; very friable, nonsticky, nonplastic; few medium roots throughout; few fine mica flakes; moderately acid; clear smooth boundary.
- Bt—15 to 36 inches; yellowish brown (10YR 5/8) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few medium roots throughout; many medium prominent light gray (10YR 7/1) iron depletions; few fine mica flakes; common distinct clay films on all faces of peds; moderately acid; gradual smooth boundary.
- Btg—36 to 80 inches; light gray (10YR 7/1) sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots between peds; many medium prominent brownish yellow (10YR 6/8) masses of oxidized iron; few fine mica flakes; common distinct clay films on all faces of peds; strongly acid.

Range in Characteristics

Thickness of the solum: 30 to more than 60 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 5 percent quartz gravel in the A and B horizons

Content of mica flakes: Few or common in the B horizon of most pedons

Reaction: Very strongly acid to moderately acid, except where lime has been applied

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—sandy loam

E horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—loamy sand or sandy loam

BE horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 to 8

Texture—sandy loam or sandy clay loam

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—clay loam, sandy clay loam, or sandy loam; silt content less than 30 percent

Redoximorphic features—iron depletions that have chroma of 2 or less within the upper 24 inches of the top of the argillic horizon; masses of oxidized iron in shades of brown, yellow, red, and olive

Btg horizon:

Color—hue of 10YR, value of 5 to 7, and chroma of 1 or 2

Texture—clay loam or sandy clay loam; silt content less than 30 percent

Redoximorphic features—masses of oxidized iron in shades of yellow and red

BC horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 3 to 8

Texture—sandy loam or sandy clay loam

Redoximorphic features—iron depletions in shades of olive and gray; masses of oxidized iron in shades of brown, yellow, and red

Bush River Series

Depth class: Deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum weathered from a mixture of felsic, intermediate, or mafic igneous or high-grade metamorphic rocks, such as aplitic granite or granite gneiss that is cut by dykes of gabbro and diorite or mixed with hornblende schist or hornblende gneiss

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine, mixed, semiactive, thermic Aquic Hapludults

Associated Soils

- Cecil and Pacolet soils, which are well drained and have kaolinitic mineralogy
- Hard Labor soils, which have iron depletions that have chroma of 2 or less below a depth of 30 inches
- Helena soils, which have paralithic contact at depths of more than 60 inches

- Prosperity soils, which have paralithic contact at depths of 20 to 40 inches
- Rion and Santuc soils, which contain less clay in the particle-size control section than the Helena soils
- Winnsboro and Wynott soils, which have base saturation greater than 35 percent

Typical Pedon

Bush River sandy loam, 2 to 6 percent slopes; Newberry County, South Carolina; about 11.0 miles west of Newberry on County Road 58 to the junction with County Road 22, southwest 0.33 mile on County Road 22, northwest 0.63 mile on a logging road, 224 degrees southwest for 219 feet, in woods; USGS topographic quadrangle, Bush River, SC (1995); lat. 34 degrees 17 minutes 28 second N. and long. 81 degrees 49 minutes 10 seconds W.

- A—0 to 10 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; common fine and medium and few coarse roots throughout; moderately acid, abrupt smooth boundary.
- BEt—10 to 14 inches; brownish yellow (10YR 6/8) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots throughout; few faint clay films on all faces of peds; moderately acid; clear smooth boundary.
- Bt—14 to 34 inches; brownish yellow (10YR 6/8) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and medium roots between peds; few medium prominent red (2.5YR 4/8) masses of oxidized iron; common distinct clay films on all faces of peds; moderately acid; gradual wavy boundary.
- BCt—34 to 46 inches; brownish yellow (10YR 6/6), light brownish gray (10YR 6/2), and reddish yellow (5YR 6/8) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots between peds; few distinct clay films on surfaces along root channels; very strongly acid; clear wavy boundary.
- Crt—46 to 80 inches; highly fractured, soft bedrock; few distinct clay films along cracks; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Depth to soft bedrock: 40 to 60 inches

Content of coarse fragments: 0 to 15 percent gravel throughout the profile

Reaction: Very strongly acid to moderately acid, except where lime has been applied; limed areas generally are slightly acid in the upper part

A or Ap horizon:

Color—hue of 10YR or 2.5Y, value of 3 to 6, and chroma of 1 to 4

Texture (fine-earth fraction)—sandy loam

E horizon (if it occurs):

Color—hue of 10YR to 5Y, value of 5 to 8, and chroma of 2 to 4

Texture (fine-earth fraction)—loamy sand or sandy loam

BEt horizon:

Color—hue of 7.5YR to 5Y, value of 5 to 8, and chroma of 3 to 8

Texture—sandy clay loam or clay loam

Bt horizon:

Color—hue of 5YR to 5Y, value of 5 to 8, and chroma of 3 to 8; lower part of horizon has hue of 5YR or is multicolored in shades of yellow, brown, gray, and red in some pedons

Texture—sandy clay loam, clay loam, sandy clay, or clay; textures of sandy clay loam confined to thin subhorizons
Redoximorphic features—iron depletions that have chroma of 2 or less within 24 inches of the upper boundary of the horizon; masses of oxidized iron in shades of yellow, brown, and red in some pedons

Btg horizon (if it occurs):

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2
Texture—clay loam, sandy clay, or clay
Redoximorphic features—masses of oxidized iron in shades of yellow, brown, and red in most pedons

BCt horizon:

Color—hue of 5YR to 10YR, value of 5 or 6, and chroma of 4 to 8; hue of 5YR confined to lower horizons
Texture—clay loam, sandy clay loam, or sandy loam
Redoximorphic features—iron depletions in shades of gray and yellow; masses of oxidized iron in shades of yellow, brown, and red in most pedons

BCg horizon (if it occurs):

Color—hue of 10YR, value of 6 or 7, and chroma of 1
Texture—clay loam, sandy clay loam, or sandy loam
Redoximorphic features—masses of oxidized iron in shades of yellow, brown, and red in most pedons

C horizon (if it occurs):

Color—hue of 5YR to 5Y, value of 5 to 8, and chroma of 3 to 8
Texture—saprolite that has a texture of sandy loam, fine sandy loam, loam, or sandy clay loam; bodies or seams of clay loam or clay in some pedons
Lithochromic mottles—in shades of red, yellow, brown, gray, and white in some pedons

Crt horizon:

Type of bedrock—soft, slightly to highly fractured igneous or metamorphic felsic rock

Callison Series

Depth class: Moderately deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum weathered primarily from Carolina slate

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine-silty, siliceous, semiactive, thermic Aquic Hapludults

Associated Soils

- Georgeville and Gundy soils, which do not have iron depletions that have chroma of 2 or less and have more than 35 percent clay in the particle-size control section

Typical Pedon

Callison silt loam, 2 to 6 percent slopes; Saluda County, South Carolina; about 15.0 miles north of Edgefield from the junction of U.S. Forest Service Roads C-592 and 591, southwest 0.3 mile on U.S. Forest Service Road 591, about 130 degrees southeast for 85 feet; USGS topographic quadrangle, Good Hope, SC (1971); lat. 34 degrees 00 minutes 26 seconds N. and long. 81 degrees 57 minutes 49 seconds W.

- A—0 to 5 inches; light yellowish brown (10YR 6/4) silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; strongly acid; abrupt smooth boundary.
- Bt1—5 to 18 inches; brownish yellow (10YR 6/6) silty clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots throughout; few faint clay films on all faces of peds; 2 percent quartz gravel; moderately acid; clear wavy boundary.
- Bt2—18 to 26 inches; brownish yellow (10YR 6/6) silty clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium roots throughout; common medium distinct very pale brown (10YR 7/4) iron depletions and few medium distinct yellowish brown (10YR 5/8) masses of oxidized iron; few faint clay films on all faces of peds; 2 percent slate channers; strongly acid; gradual wavy boundary.
- Bt3—26 to 34 inches; light yellowish brown (2.5Y 6/4) silty clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots between peds; many coarse prominent gray (10YR 6/1) iron depletions and common medium prominent reddish yellow (7.5YR 6/8) masses of oxidized iron; few faint clay films on all faces of peds; 5 percent slate channers; strongly acid; gradual wavy boundary.
- Btg—34 to 37 inches; gray (10YR 6/1) silty clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and few medium roots between peds; common coarse prominent light yellowish brown (2.5Y 6/4) and medium prominent reddish yellow (7.5YR 6/8) masses of oxidized iron; many distinct clay films on all faces of peds; strongly acid; abrupt smooth boundary.
- Crt—37 to 45 inches; multicolored, soft, fractured Carolina slate; difficult to dig with a spade; few widely spaced seams of light brownish gray (10YR 6/2) silty clay in cracks; clear smooth boundary.
- R—45 inches; hard, fractured Carolina slate bedrock; cannot be dug with a spade.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to soft bedrock: 20 to 40 inches

Depth to hard bedrock: 40 to 60 inches

Content of coarse fragments: 0 to 10 percent slate channers or quartz gravel in the A and B horizons

Content of feldspar crystals: 0 to about 6 percent in the lower part of the B horizon

Reaction: Strongly acid or moderately acid in the A horizon, except where lime has been applied, and very strongly acid to moderately acid in the B and C horizons

A or Ap horizon:

Color—hue of 10YR, value of 3 to 6, and chroma of 2 to 4; where value is less than 4, horizon is less than 6 inches thick

Texture—silt loam

E horizon (if it occurs):

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 4 to 6

Texture—silt loam

Bt horizon:

Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 3 to 8

Texture—silt loam, silty clay loam, silty clay, or clay

Redoximorphic features—iron depletions in shades of gray within the upper 24 inches of the argillic horizon; masses of oxidized iron in shades of red, yellow, and brown

Btg horizon:

Color—hue of 10YR, value of 6, and chroma of 1

Texture—silty clay or clay

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown

C horizon (if it occurs):

Color—horizon has hue of 10YR, value of 5 or 6, and chroma of 3 to 8

Texture—silt loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown

Crt horizon:

Type of bedrock—soft, fractured Carolina slate or other fine-grained rock

R layer:

Type of bedrock—hard Carolina slate or other fine-grained rock

Cartecay Series

Depth class: Very deep

Drainage class: Somewhat poorly drained

Saturated hydraulic conductivity: High

Parent material: Thick, loamy alluvial sediments

Landform: Flood plains

Slope range: 0 to 2 percent

Taxonomic class: Coarse-loamy, mixed, semiactive, nonacid, thermic Aquic Udifluvents

Associated Soils

- Chenneby and Shellbluff soils, which have a particle-size control section that is fine-silty
- Toccoa soils, which do not have iron depletions with chroma of 2 or less within a depth of 20 inches

Typical Pedon

Cartecay sandy loam, 0 to 2 percent slopes, frequently flooded; Edgefield County, South Carolina; about 16.25 miles southwest of Edgefield from the junction of County Roads 235 and 53, west on County Road 53 for 1.24 miles to a logging road on the right, along the logging road for 0.3 mile, 350 degrees for 350 feet; USGS topographic quadrangle, Martinez, GA-SC (1964); lat. 33 degrees 36 minutes 27 seconds N. and long. 82 degrees 06 minutes 14 seconds W.

A—0 to 4 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; few fine mica flakes; moderately acid; abrupt smooth boundary.

C—4 to 14 inches; brown (10YR 5/3) sandy loam; massive; very friable, nonsticky, nonplastic; common fine and medium roots throughout; thin strata of sand; common medium faint grayish brown (10YR 5/2) and few fine and medium faint pale brown (10YR 6/3) iron depletions; common medium prominent strong brown (7.5YR 4/6) masses of oxidized iron; few fine mica flakes; moderately acid; abrupt smooth boundary.

Cg—14 to 21 inches; gray (10YR 5/1) sandy loam; massive; very friable, nonsticky, nonplastic; few fine and medium roots throughout; common medium prominent strong brown (7.5YR 5/6) masses of oxidized iron; few fine mica flakes; moderately acid; abrupt smooth boundary.

- C'—21 to 35 inches; strong brown (7.5YR 4/6) loamy sand; massive; very friable, nonsticky, nonplastic; few fine roots throughout; thin strata of sand; common coarse prominent gray (10YR 5/1) iron depletions; common fine mica flakes; moderately acid; abrupt smooth boundary.
- C'g—35 to 48 inches; gray (10YR 5/1) fine sandy loam; massive; very friable, nonsticky, nonplastic; few fine roots throughout; many coarse prominent strong brown (7.5YR 4/6) masses of oxidized iron; common fine mica flakes; moderately acid; abrupt smooth boundary.
- C''—48 to 80 inches; light yellowish brown (10YR 6/4) coarse sandy loam; massive; very friable, nonsticky, nonplastic; few fine roots throughout; thin strata of sandy clay loam and loamy sand; common medium distinct gray (10YR 5/1) iron depletions; few medium distinct strong brown (7.5YR 4/6) masses of oxidized iron; few fine mica flakes; moderately acid.

Range in Characteristics

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 10 percent in the A horizon and 0 to 15 percent in the C horizons

Content of mica flakes: Few to many throughout the profile

Contrasting textures: Thin strata of contrasting textures throughout the profile; 8 to 18 percent clay content and more than 15 percent sand coarser than very fine sand in the 10- to 40-inch particle-size control section

Reaction: Strongly acid to slightly acid in the particle-size control section; pH of 5.5 or higher in some part of all pedons

A horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4; hue of 10YR, value of 3, and chroma of 3 or 4

Texture—sandy loam

Thickness—less than 6 inches in some pedons

C horizons:

Color—hue of 7.5YR or 10YR, value of 4 to 7, and chroma of 3 to 6

Texture—coarse sandy loam or sandy loam; thin strata of coarser or finer textured material in most pedons

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown

Cg horizons:

Color—hue of 10YR, value of 4 to 6, and chroma of 1 or 2

Texture—sand, loamy sand, sandy loam, or silt loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown

Cataula Series

Depth class: Very deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residium weathered from metamorphic and igneous rocks

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine, kaolinitic, thermic Oxyaquic Kanhapludults

Associated Soils

- Cecil, Hard Labor, Helena, Mecklenburg, Bush River, Pacolet, Prosperity, Rion, Santuc, Winnsboro, and Wynott soils, which do not have any horizons that are slightly brittle and slightly cemented

Typical Pedon

Cataula sandy loam, 2 to 6 percent slopes, moderately eroded; Newberry County, South Carolina; about 6.0 miles northwest of Newberry from the junction of United States Highway 76 and County Road 32, southeast on the highway for 0.20 mile, northeast on a gated field road for 0.25 mile, northwest on a logging road for 1,531 feet, about 328 degrees for 200 feet; USGS topographic quadrangle, Newberry West, SC (1969); lat. 34 degrees 20 minutes 56 seconds N. and long. 81 degrees 40 minutes 50 seconds W.

- A—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; very strongly acid; abrupt smooth boundary.
- BE—2 to 5 inches; yellowish brown (10YR 5/6) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; strongly acid; clear smooth boundary.
- Bt1—5 to 8 inches; yellowish red (5YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium roots throughout; few faint clay films on all faces of peds; strongly acid; clear smooth boundary.
- Bt2—8 to 16 inches; red (2.5YR 4/8) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and medium roots between peds; common distinct clay films on all faces of peds; strongly acid; clear wavy boundary.
- Btx1—16 to 33 inches; red (2.5YR 4/8) sandy clay loam in horizontal layers 1 to 2 inches thick separated by brownish yellow (10YR 6/6) and very pale brown (10YR 7/4) clay layers about 1/2 inch thick; moderate thick platy structure; red material is dense and brittle; brownish yellow and very pale brown material is firm, moderately sticky, and moderately plastic; common fine and few medium roots between peds; common prominent clay films on all faces of peds; very strongly acid; gradual wavy boundary.
- Btx2—33 to 45 inches; red (2.5YR 5/8) sandy clay loam in horizontal layers 1/2 inch to 1 1/2 inches thick separated by yellow (10YR 7/8) and white (10YR 8/1) clay layers about 1/4 to 1/2 inch thick; moderate thick and very thick platy structure; red material is dense and brittle; yellow and white material is firm, moderately sticky, and moderately plastic; few fine roots between peds; common prominent clay films on all faces of peds; very strongly acid; gradual wavy boundary.
- BCt—45 to 80 inches; red (2.5YR 5/8) sandy clay loam; weak medium angular blocky structure; friable, slightly sticky, slightly plastic; few fine roots between peds; few medium distinct reddish yellow (5YR 7/6) masses of oxidized iron; few distinct clay films on all faces of peds; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Depth to bedrock: More than 60 inches

Depth to brittle layer: 15 to 40 inches

Content of coarse fragments: 0 to 10 percent angular quartz fragments that are commonly quartz stringers

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid in all other horizons

A horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6

Texture—sandy loam

BE horizon:

Color—hue of 10YR, value of 5, and chroma of 4 to 6

Texture—sandy loam

Bt horizon (upper part):

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—sandy clay loam, clay loam, or clay

Bt horizon (lower part):

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 6 to 8

Texture—clay loam or clay

Redoximorphic features—masses of oxidized iron in shades of red and yellow

BC horizon:

Color—hue of 2.5YR to 10YR and value and chroma of 4 to 8

Texture—sandy clay loam, clay loam, or sandy clay; 20 to 60 percent of horizon is dense and weakly cemented brittle material with iron oxides

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown

Btx horizon:

Color—hue of 2.5YR to 10YR, value of 4 to 7, and chroma of 4 to 8

Texture—clay loam, sandy clay loam, or clay

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown

C horizon (if it occurs):

Color—hue of 2.5YR to 10YR, value of 4 to 7, and chroma of 4 to 8

Texture—sandy loam, loam, or sandy clay loam and highly weathered saprolite that crushes easily

Cecil Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum weathered from felsic, igneous, and high-grade metamorphic rocks

Landform: Uplands

Slope range: 2 to 15 percent

Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Associated Soils

- Cataula soils, which have a dense, partially brittle layer
- Davidson soils, which are dark red and have color value of 3 or less
- Hard Labor soils, which have a dominant hue of 5YR or yellower and have iron depletions that have chroma of 2 or less below a depth of 30 inches
- Mecklenburg, Winnsboro, and Wynott soils, which have mixed mineralogy and have base saturation greater than 35 percent
- Pacolet soils, which have thinner Bt horizons than the Cecil soils
- Rion soils, which contain less clay in the particle-size control section than the Cecil soils

Typical Pedon

Cecil sandy loam, 6 to 10 percent slopes, moderately eroded; Abbeville County, South Carolina; about 4.5 miles east of Abbeville from the junction of U.S. Forest Service Roads 505-E and 505, northeast on U.S. Forest Service Road 505 for 0.25 mile, 320 degrees for 110 feet; USGS topographic quadrangle, Abbeville East, SC (1980); lat. 34 degrees 07 minutes 57 seconds N. and long. 82 degrees 19 minutes 04.5 seconds W.

- A—0 to 3 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; few medium and coarse and many fine roots throughout; strongly acid; abrupt smooth boundary.
- Bt1—3 to 15 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine to coarse roots throughout; few fine tubular pores; few fine mica flakes; common distinct clay films on all faces of peds; strongly acid; gradual smooth boundary.
- Bt2—15 to 38 inches; red (2.5YR 4/8) clay; few fine and medium distinct strong brown (7.5YR 5/8) lithochromic mottles; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and few medium roots throughout; few fine tubular pores; common fine mica flakes; many prominent clay films on all faces of peds; strongly acid; gradual wavy boundary.
- Bt3—38 to 48 inches; red (2.5YR 4/8) clay loam; common medium faint yellowish red (5YR 5/8) and few medium prominent strong brown (7.5YR 5/6) lithochromic mottles; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and medium roots throughout; few fine tubular pores; few fine mica flakes; common prominent clay films on all faces of peds; strongly acid; gradual smooth boundary.
- BCt—48 to 80 inches; red (2.5YR 4/8) sandy clay loam; common medium and coarse distinct strong brown (7.5YR 5/8) lithochromic mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots throughout; few fine tubular pores; few fine and medium prominent very pale brown (10YR 7/3) iron depletions; few fine mica flakes; few distinct clay films on all faces of peds; strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Depth to bedrock: More than 78 inches; ranging to 120 inches or more

Content of coarse fragments: 0 to 35 percent gravel and cobbles in the A horizon and 0 to 10 percent in the Bt horizon

Content of mica flakes: Few or common in the Bt horizon and few to many in the BCt and C horizons in most pedons

Reaction: Very strongly acid to moderately acid in the A horizon, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons; limed areas are typically moderately acid or slightly acid in the upper part

A or Ap horizon:

Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 2 to 8; where value is 3, horizon is less than 6 inches thick

Texture (fine-earth fraction)—sandy loam

E horizon (if it occurs):

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture (fine-earth fraction)—sandy loam

BA or BE horizon (if it occurs):

Color—hue of 5YR or 7.5YR, value of 4 or 5, and chroma of 4 to 8

Texture—sandy clay loam

Bt horizon:

Color—hue of 2.5YR, value of 4 or 5, and chroma of 6 to 8; hue ranges to 5YR where horizon does not have evident patterns of lithochromic mottling
Texture—clay loam or clay; less than 30 percent silt and 35 to 60 percent clay
Lithochromic mottles—in shades of brown, red, and yellow

BCt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 8
Texture—sandy clay loam, clay loam, or loam
Lithochromic mottles—in shades of yellow and brown

C horizon (if it occurs):

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 8
Texture—loamy saprolite weathered from felsic, igneous, and high-grade metamorphic rocks

Chenneby Series

Depth class: Very deep

Drainage class: Somewhat poorly drained

Saturated hydraulic conductivity: Moderately high

Parent material: Alluvium

Landform: Flood plains

Slope range: 0 to 2 percent

Taxonomic class: Fine-silty, mixed, active, thermic Fluvaquentic Dystrudepts

Associated Soils

- Cartecay soils, which are coarse-loamy and have iron depletions that have chroma of 2 or less within a depth of 20 inches
- Shellbluff soils, which do not have iron depletions that have chroma of 2 or less in the upper 24 inches
- Toccoa soils, which are coarse-loamy

Typical Pedon

Chenneby silt loam, 0 to 2 percent slopes, frequently flooded; Newberry County, South Carolina; about 6.75 miles south of Whitmire from the junction of South Carolina Highway 121 and Indian Creek, south on South Carolina Highway 121 for 0.275 mile, 90 degrees for 200 feet, 40 degrees for 625 feet; USGS topographic quadrangle, Whitmire South, SC (1969); lat. 34 degrees 24 minutes 33 seconds N. and long. 81 degrees 34 minutes 31 seconds W.

A—0 to 4 inches; brown (10YR 4/3) silt loam; weak fine granular structure; friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; few fine mica flakes; strongly acid; abrupt smooth boundary.

Bw1—4 to 9 inches; brown (10YR 4/3) silt loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and few medium and coarse roots throughout; few distinct patchy organic coats; common medium faint brown (10YR 5/3) iron depletions; few mica flakes; moderately acid; clear smooth boundary.

Bw2—9 to 20 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and few medium and coarse roots throughout; few distinct patchy organic coats; common medium faint pale brown (10YR 6/3) iron depletions; few medium distinct yellowish brown (10YR 5/6) masses of oxidized iron; few fine mica flakes; moderately acid; gradual wavy boundary.

Bw3—20 to 41 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium roots throughout; common distinct patchy organic coats; common coarse distinct gray (10YR 5/1) and few medium faint brown (10YR 5/3) iron depletions; few fine mica flakes; moderately acid; clear smooth boundary.

Cg—41 to 80 inches; gray (10YR 5/1) clay loam; massive; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; few distinct patchy organic coats; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few fine mica flakes; moderately acid.

Range in Characteristics

Thickness of the solum: 40 to 70 inches

Depth to bedrock: More than 72 inches

Content of mica flakes: None to common in the solum

Reaction: Strongly acid or moderately acid in the A horizon, except where lime has been applied, and very strongly acid to moderately acid in the B and C horizons

A horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4; where value is 3 and chroma is 2, horizon is 6 inches thick or less

Texture—silt loam

Bw horizon:

Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6

Texture—dominantly silt loam or silty clay loam; loam or clay loam in some pedons

Redoximorphic features—iron depletions in shades of gray within a depth of 24 inches; masses of oxidized iron in shades of brown and yellow

Cg horizon:

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2

Texture—sandy loam to silty clay loam

Redoximorphic features—iron depletions in shades of olive and gray; masses of oxidized iron in shades of olive and gray

Davidson Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Materials weathered from dark rocks that have a high content of ferromagnesian minerals

Landform: Uplands

Slope range: 2 to 7 percent

Taxonomic class: Fine, kaolinitic, thermic Rhodic Kandiodults

Associated Soils

- Cecil soils, which have color value of 4 or more throughout
- Hiwassee soils, which occur on high stream terraces
- Mecklenburg soils, which have a solum less than 45 inches thick, have mixed mineralogy, and have base saturation of more than 35 percent
- Wilkes soils, which have a solum less than 20 inches thick and have mixed mineralogy
- Winnsboro soils, which have strong brown or yellowish brown subsoils, have mixed mineralogy, and have greater than 35 percent base saturation

Typical Pedon

Davidson sandy clay loam, 2 to 6 percent slopes, moderately eroded; McCormick County, South Carolina; about 1.3 miles northwest of Winterseat, 1.3 miles east-southeast from the junction of United States Highway 221 and County Road 24, about 0.9 mile northeast of the junction of County Roads 41 and 85, about 50 feet north of County Road 24; USGS topographic quadrangle, Winterseat, SC; lat. 33 degrees 59 minutes 14 seconds N. and long. 82 degrees 13 minutes 16 seconds W.

A—0 to 4 inches; dark reddish brown (5YR 3/3) sandy clay loam; weak fine granular structure; very friable, moderately sticky, moderately plastic; many fine and medium roots throughout; common fine and medium tubular pores; moderately acid; abrupt smooth boundary.

Bt1—4 to 17 inches; dusky red (10R 3/4) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine to coarse roots throughout; few fine tubular pores; few thick prominent clay films on faces of peds; few rounded iron concretions; moderately acid; gradual wavy boundary.

Bt2—17 to 42 inches; dark red (10R 3/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; common fine tubular pores; common thick prominent clay films on faces of peds; few rounded iron concretions; moderately acid; gradual wavy boundary.

Bt3—42 to 80 inches; dark red (2.5YR 3/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; few fine tubular pores; common thick prominent clay films on faces of peds; few rounded iron concretions; moderately acid.

Range in Characteristics

Thickness of the solum: 60 inches or more

Depth to bedrock: More than 72 inches

Content of concretions: None to common in the upper part of the profile

Reaction: Very strongly acid to slightly acid, except where lime has been applied

A horizon:

Color—hue of 2.5YR or 5YR, value of 2 or 3, and chroma of 2 to 4

Texture—sandy clay loam

Bt horizon:

Color—hue of 10R or 2.5YR, value of 3, and chroma of 3 to 6

Texture—clay or clay loam; particle-size control section has 40 to 60 percent clay

Lithochromic mottles—in shades of yellow and red

Georgeville Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Material weathered from Carolina slate or other fine-grained rocks

Landform: Uplands

Slope range: 2 to 25 percent

Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Associated Soils

- Callison soils, which have less than 35 percent clay in the particle-size control section and have iron depletions that have chroma of 2 or less

- Goldston soils, which have more than 35 percent coarse fragments throughout the solum
- Gundy soils, which have clayey Bt horizons less than 24 inches thick
- Hiwassee soils, which have a dark red subsoil and have less than 30 percent silt in the particle-size control section

Typical Pedon

Georgeville silty clay loam, 2 to 7 percent slopes, eroded; McCormick County, South Carolina; about 1.6 miles west-southwest of Liberty Hill, 1.4 miles southwest of the junction of United States Highway 378 and County Road 138, about 0.6 mile south-southeast of the junction of United States Highway 378 and County Road 163, about 250 east of County Road 163; USGS topographic quadrangle, Winterseat, SC; lat. 33 degrees 54 minutes 08 seconds N. and long. 82 degrees 13 minutes 37 seconds W.

A—0 to 2 inches; yellowish red (5YR 5/6) silty clay loam; weak fine granular structure; friable, slightly sticky, slightly plastic; many fine and medium roots throughout; moderately acid; abrupt smooth boundary.

Bt1—2 to 21 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; moderately acid; gradual wavy boundary.

Bt2—21 to 41 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; common distinct clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt3—41 to 56 inches; red (2.5YR 5/8) silty clay loam; common medium prominent strong brown (7.5YR 5/6) lithochromic mottles; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine roots throughout; common distinct clay films on faces of peds; strongly acid; gradual wavy boundary.

BC—56 to 80 inches; red (2.5YR 5/8) silty clay loam; common medium prominent strong brown (7.5YR 5/6) lithochromic mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few faint clay films on faces of peds; strongly acid.

Range in Characteristics

Depth to bedrock: More than 60 inches

Thickness of the clayey part of the Bt horizon: 24 to 48 inches

Depth to the bottom of the clayey Bt horizon: More than 30 inches

Content of coarse fragments: 0 to 20 percent in the A horizon and 0 to 5 percent in the Bt, BCt, and C horizons

Content of mica flakes: None or few in the lower part of the solum

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid or strongly acid throughout the rest of the profile

A horizon:

Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 3 to 6

Texture (fine-earth fraction)—silt loam; silty clay loam in eroded areas

Bt horizon (upper part):

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—silty clay loam, silty clay, or clay; particle-size control section averages more than 30 percent silt or more than 40 percent silt plus very fine sand or less than 15 percent sand coarser than very fine sand

Bt horizon (lower part):

Color—hue of 2.5YR, value of 4 or 5, and chroma of 6 to 8

Texture—silty clay loam, silty clay, or clay

Lithochromic mottles (if they occur)—in shades of yellow and brown

BC horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—silt loam or silty clay loam

Lithochromic mottles—in shades of yellow and brown

C horizon (if it occurs):

Color—hue of 2.5YR to 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—silt loam that has as much as 90 percent weathered saprolite of Carolina slate or fine-grained rock material

Lithochromic mottles—in shades of brown, yellow, and red

Gundy Series

Depth class: Deep and very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Material weathered from Carolina slate

Landform: Uplands

Slope range: 6 to 25 percent

Taxonomic class: Fine, mixed, semiactive, thermic Ultic Hapludalfs

Associated Soils

- Callison and Georgeville soils, which have a base saturation of less than 35 percent
- Mecklenburg, Winnsboro, and Wynott soils, which have slower permeability than the Gundy soils

Typical Pedon

Gundy silt loam, 10 to 15 percent slopes, moderately eroded; Edgefield County, South Carolina; about 13.0 miles west of Edgefield, 2.75 miles west of Red Hill Church, 0.60 mile east of Stevens Creek, 150 feet north of Buzzard Branch; USGS topographic quadrangle, Parksville, SC-GA (1964); lat. 33 degrees 45 minutes 24 seconds N. and long. 82 degrees 09 minutes 27 seconds W.

A—0 to 4 inches; brown (10YR 5/3) silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and few medium roots throughout; 5 percent quartz gravel and slate channers 1 to 4 inches in length; moderately acid; abrupt smooth boundary.

Bt1—4 to 20 inches; red (2.5YR 4/8) clay; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; common fine and few medium roots throughout; many prominent clay films on all faces of peds; about 2 percent quartz gravel and slate channers 1 to 4 inches in length; moderately acid; gradual wavy boundary.

Bt2—20 to 27 inches; red (2.5YR 4/8) clay loam; few medium distinct reddish yellow (5YR 6/8) lithochromic mottles; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; few fine roots between peds; many prominent clay films on all faces of peds; 3 percent slate channers 1 to 4 inches in length; moderately acid; gradual wavy boundary.

BC—27 to 32 inches; red (2.5YR 5/8) channery clay loam; common medium faint reddish yellow (5YR 6/8) lithochromic mottles; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; few fine roots between peds; 15

percent slate channers 1 to 4 inches in length; moderately acid; gradual wavy boundary.

C—32 to 52 inches; yellowish red (5YR 5/8) very channery clay loam; few medium prominent brownish yellow (10YR 6/6) lithochromic mottles; massive; friable; few fine roots in pockets of material from B horizon; 50 percent slate channers 1 to more than 4 inches in length; few pockets of red clay loam (B material); moderately acid; gradual wavy boundary.

Cr—52 to 80 inches; pale olive (5Y 6/4) soft slate bedrock; few medium distinct light olive gray (5Y 6/2) iron depletions.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to soft bedrock: 40 to more than 60 inches

Coarse fragments (content, kind, size): 0 to 30 percent in the A horizon, 2 to 15 percent in the B horizon, and 20 to 55 percent in the C horizon; commonly slate channers 1 to 4 inches or more in length

Reaction: Strongly acid to slightly acid throughout the profile, except where lime has been applied

A horizon:

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 2 to 4

Texture (fine-earth fraction)—silt loam

Bt horizon:

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay loam, silty clay, or clay

Lithochromic mottles (if they occur)—in shades of yellow and brown

BC horizon:

Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 3 to 8

Texture (fine-earth fraction)—silt loam, silty clay loam, or clay loam

Lithochromic mottles (if they occur)—in shades of yellow and brown

C horizon:

Color—hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 8

Texture (fine-earth fraction)—silt loam, silty clay loam, or clay loam

Lithochromic mottles—in shades of red, yellow, and brown

Cr horizon:

Type of bedrock—soft Carolina slate or fine-grained schist

Hard Labor Series

Depth class: Very deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum weathered from felsic igneous and metamorphic rock; primarily granite and granite gneiss

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine, kaolinitic, thermic Oxyaquic Kanhapludults

Associated Soils

- Cataula soils, which have a dense, partially brittle layer
- Cecil and Pacolet soils, which have red Bt horizons

- Helena, Bush River, Prosperity, and Santuc soils, which have iron depletions that have chroma of 2 or less in the upper 24 inches of the Bt horizon
- Rion soils, which contain less clay in the particle-size control section than the Hard Labor soils

Typical Pedon

Hard Labor sandy loam, 2 to 6 percent slopes; Newberry County, South Carolina; about 5.0 miles northeast of Prosperity from the junction of Interstate 26 and South Carolina Highway 773, north on South Carolina Highway 773 for 0.95 mile, 146 degrees southeast on a field road for 200 feet, 60 degrees northeast for 262 feet; USGS topographic quadrangle, Little Mountain, SC (1971); lat. 34 degrees 14 minutes 58 seconds N. and long. 81 degrees 27 minutes 06 seconds W.

- Ap—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; common fine and medium roots throughout; moderately acid; abrupt smooth boundary.
- E—2 to 10 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; common fine and medium roots throughout; neutral; abrupt smooth boundary.
- B_{Et}—10 to 15 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots throughout; few faint clay films on all faces of peds; slightly acid; gradual wavy boundary.
- B_{t1}—15 to 40 inches; brownish yellow (10YR 6/8) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine roots between peds; many coarse prominent red (2.5YR 4/8) masses of oxidized iron; common distinct clay films on all faces of peds; strongly acid; gradual wavy boundary.
- B_{t2}—40 to 45 inches; brownish yellow (10YR 6/8) clay; weak medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine roots between peds; few medium prominent very pale brown (10YR 7/3) iron depletions; many coarse prominent red (2.5YR 4/8) masses of oxidized iron; common distinct clay films on all faces of peds; strongly acid; gradual wavy boundary.
- B_{Ct}—45 to 80 inches; brownish yellow (10YR 6/8) clay loam; weak medium subangular structure; firm, slightly sticky, slightly plastic; few fine roots between peds; common medium prominent light gray (10YR 6/1) iron depletions; many medium faint strong brown (7.5YR 5/8) and common medium prominent red (2.5YR 4/8) masses of oxidized iron; few distinct clay films on all faces of peds; strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches or more

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 15 percent in the A and E horizons and 0 to 10 percent in the B and C horizons

Content of mica flakes: None to common in the A, E, and B_t horizons and few to many in the B_{Ct} and C horizons

Content of plinthite nodules: 0 to 5 percent in the lower part of the B_t horizon and in the B_{Ct} horizon

Reaction: Very strongly acid to moderately acid throughout the profile, except where lime has been applied; limed areas typically are slightly acid or neutral in the upper part of the profile

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—sandy loam

E horizon:

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—loamy sand or sandy loam

BA or BEt horizon:

Color—hue of 10YR, value of 6, and chroma of 4 to 6

Texture—sandy loam or sandy clay loam

Bt horizon:

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 8; chroma of 3 restricted to hue of 10YR

Texture—clay loam or clay; clay content ranges from 35 to 60 percent

Redoximorphic features—iron depletions in shades of gray below a depth of 30 inches; masses of oxidized iron in shades of red, yellow, and brown in most pedons

BCt horizon:

Color—hue of 2.5YR to 10YR, value of 4 to 7, and chroma of 6 to 8

Texture—sandy clay loam or clay loam

Redoximorphic features—iron depletions in shades of gray and brown

Kaolinite—masses and streaks of white kaolinite in some pedons

C horizon (if it occurs):

Color—hue of 2.5YR to 10YR, value of 4 to 7, and chroma of 6 to 8

Texture—loamy saprolite weathered from felsic igneous and metamorphic rock

Kaolinite—masses and streaks of white kaolinite in some pedons

Helena Series

Depth class: Very deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum weathered from a mixture of felsic, intermediate, or mafic igneous or high-grade metamorphic rocks, such as aplitic granite or granite gneiss that is cut by dykes of gabbro and diorite or mixed with hornblende schist or hornblende gneiss

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine, mixed, semiactive, thermic Aquic Hapludults

Associated Soils

- Cecil and Pacolet soils, which are well drained and have kaolinitic mineralogy
- Hard Labor soils, which have iron depletions that have chroma of 2 or less below a depth of 30 inches
- Bush River soils, which have paralithic contact at depths of 40 to 60 inches
- Prosperity soils, which have paralithic contact at depths of 20 to 40 inches
- Rion and Santuc soils, which contain less clay in the particle-size control section than the Helena soils
- Winnsboro and Wynott soils, which have base saturation greater than 35 percent

Typical Pedon

Helena sandy loam, 2 to 6 percent slopes; Newberry County, South Carolina; about 1.0 mile southwest of Prosperity from the junction of South Carolina Highway 391 and County Road 244, southwest on County Road 244 for 0.9 mile, 152 degrees southeast on a power line right-of-way for 200 feet, 110 degrees southeast for 72 feet; USGS

topographic quadrangle, Prosperity, SC (1970); lat. 34 degrees 12 minutes 01 second N. and long. 81 degrees 32 minutes 45 seconds W.

- A—0 to 3 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; very strongly acid; abrupt smooth boundary.
- E—3 to 7 inches; light yellowish brown (2.5Y 6/4) sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; many fine and medium roots throughout; strongly acid; abrupt smooth boundary.
- BEt—7 to 12 inches; brownish yellow (10YR 6/6) sandy clay loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; few fine and medium roots throughout; few faint clay films on all faces of peds; very strongly acid; clear smooth boundary.
- Bt1—12 to 23 inches; brownish yellow (10YR 6/8) clay; moderate medium subangular blocky structure; very firm, moderately sticky, moderately plastic; few fine and medium roots between peds; few medium distinct yellowish red (5YR 5/8) masses of oxidized iron; common distinct clay films on all faces of peds; very strongly acid; gradual smooth boundary.
- Bt2—23 to 38 inches; olive yellow (2.5Y 6/6) clay; moderate medium subangular blocky structure; very firm, moderately sticky, moderately plastic; few fine and medium roots between peds; common medium prominent red (2.5YR 5/8) masses of oxidized iron; common medium prominent light gray (10YR 7/1) iron depletions; common distinct clay films on all faces of peds; very strongly acid; gradual wavy boundary.
- BCt—38 to 80 inches; brownish yellow (10YR 6/6) sandy clay loam; weak medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and medium roots between peds; common medium prominent yellowish red (5YR 5/8) masses of oxidized iron and common medium prominent white (10YR 8/1) iron depletions; few distinct clay films on all faces of peds; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 15 percent throughout the profile

Content of concretions: None to common in the upper part of the profile

Reaction: Very strongly acid or strongly acid, except where lime has been applied; limed areas are typically moderately acid or slightly acid in the upper part

A or Ap horizon:

Color—hue of 10YR or 2.5Y, value of 3 to 6, and chroma of 2 to 4

Texture—sandy loam

E horizon:

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 3 or 4

Texture—loamy sand or sandy loam

BEt horizon:

Color—hue of 10YR and value and chroma of 6

Texture—sandy clay loam

Bt horizon (upper part):

Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8

Texture—clay loam or clay; thin subhorizons of sandy clay loam in some pedons

Redoximorphic features—iron depletions in shades of gray within 24 inches of the upper boundary of the Bt horizon; masses of oxidized iron in shades of yellow, brown, and red in some pedons

Bt horizon (lower part):

Color—hue of 5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8

Texture—clay loam or clay; thin subhorizons of sandy clay loam in some pedons

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of yellow, brown, and red

Btg horizon (if it occurs):

Color—hue of 10YR, value of 7, and chroma of 1

Texture—clay

Redoximorphic features—masses of oxidized iron in shades of yellow, brown, and red

BCt horizon:

Color—hue of 5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8

Texture—clay loam, sandy clay loam, or sandy loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of yellow, brown, and red

C horizon (if it occurs):

Color—hue of 5YR to 5Y, value of 5 to 8, and chroma of 3 to 8

Texture—saprolite that has textures of sandy loam or loam; bodies or seams of clay loam or clay in some pedons

Lithochromic mottles—in shades of gray, yellow, brown, red, and white

Hiwassee Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Old alluvium derived from felsic and mafic crystalline rocks

Landform: High stream terraces

Slope range: 2 to 15 percent

Taxonomic class: Fine, kaolinitic, thermic Rhodic Kanhapludults

Associated Soils

- Altavista, Cecil, Georgeville, Pacolet, and Rion soils, which do not have dark red colors
- Davidson soils, which do not occur on high stream terraces

Typical Pedon

Hiwassee sandy loam, 2 to 6 percent slopes, moderately eroded; Newberry County, South Carolina; about 2.0 miles southwest of Chappells from the junction of South Carolina Highway 34 and South Carolina Highway 39, west on South Carolina Highway 34 for 2.01 miles, south on a gated dirt road for 0.73 mile, northeast on a dirt road for 750 feet, 300 degrees northwest for 125 feet; USGS topographic quadrangle, Dyson, SC (1971); lat. 34 degrees 09 minutes 26 seconds N. and long. 81 degrees 53 minutes 17 seconds W.

Ap—0 to 5 inches; dark reddish brown (5YR 3/3) sandy loam; moderate medium granular structure; friable, nonsticky, nonplastic; common fine and medium roots throughout; moderately acid; clear smooth boundary.

Bt1—5 to 38 inches; dark reddish brown (2.5YR 3/4) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and medium roots throughout; few fine mica flakes; common distinct clay films on all faces of peds; moderately acid; clear smooth boundary.

Bt2—38 to 57 inches; red (2.5YR 3/6) clay; moderate medium subangular blocky

structure; firm, moderately sticky, moderately plastic; few fine and medium roots throughout; common fine mica flakes; common distinct clay films on all faces of peds; moderately acid; gradual wavy boundary.

Bt3—57 to 80 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine roots throughout; common fine mica flakes; common distinct clay films on all faces of peds; moderately acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 15 percent in the A and B horizons and 0 to 30 percent in the C horizon

Content of mica flakes: Few or common in most pedons

Content of dark iron and manganese concretions: None to common

Reaction: Very strongly acid to slightly acid, except where lime has been applied

A or Ap horizon:

Color—hue of 2.5YR to 10YR, value of 3 or 4, and chroma of 2 to 4

Texture—sandy loam

Bt horizon (upper part):

Color—hue of 10R or 2.5YR, value of 2.5 or 3, and chroma of 4 to 6

Texture—clay loam or clay

Bt horizon (lower part):

Color—hue of 10R or 2.5YR, value of 2.5 to 4, and chroma of 6 to 8

Texture—clay loam or clay

Redoximorphic features—masses of oxidized iron in shades of yellow and brown

BC horizon (if it occurs):

Color—hue of 2.5YR, value of 4, and chroma of 6

Texture (fine-earth fraction)—clay loam or sandy clay loam

Mecklenburg Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum weathered from intermediate and mafic crystalline rocks

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine, mixed, active, thermic Ultic Hapludalfs

Associated Soils

- Cecil, Davidson, and Pacolet soils, which have base saturation of less than 35 percent
- Sedgefield, Wilkes, Winnsboro, and Wynott soils, which have yellower Bt horizons than the Mecklenburg soils

Typical Pedon

Mecklenburg sandy loam, 6 to 10 percent slopes, moderately eroded; Union County, South Carolina; about 7.0 miles south of Union from the junction of Forest Service Roads 323 and 324, north on road 324 to the end of the road, 129 degrees southeast for 650 feet; USGS topographic quadrangle, Union West, SC (1969); lat. 34 degrees 37 minutes 50 seconds N. and long. 81 degrees 41 minutes 04 seconds W.

- A—0 to 4 inches; brown (7.5YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; few fine rounded dark concretions; moderately acid; 2 percent quartz pebbles; abrupt smooth boundary.
- Bt1—4 to 20 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and medium roots throughout; common distinct clay films on all faces of peds; few fine and medium rounded, dark concretions; slightly acid; gradual wavy boundary.
- Bt2—20 to 35 inches; red (2.5YR 4/8) clay; few medium distinct strong brown (7.5YR 5/8) lithochromic mottles; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and medium roots throughout; common distinct clay films on all faces of peds; few fine and medium rounded, dark concretions; slightly acid; gradual wavy boundary.
- BCt—35 to 50 inches; red (2.5YR 5/8) clay loam; common medium prominent reddish yellow (7.5YR 7/8) lithochromic mottles; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; few faint clay films on all faces of peds; few fine and medium rounded, dark concretions; slightly acid; gradual wavy boundary.
- C—50 to 80 inches; red (2.5YR 5/8) loam; common fine and medium prominent reddish yellow (7.5YR 7/8) and few medium very dark brown (10YR 2/2) lithochromic mottles; friable, slightly sticky, slightly plastic; few fine and medium rounded, dark concretions; slightly acid.

Range in Characteristics

Thickness of the solum: 20 to 58 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 15 percent in the A horizon and 0 to 10 percent in the B horizon

Content of mica flakes: None or few

Content of manganese concretions: Few to many in the A and B horizons

Reaction: Strongly acid to slightly acid in the A horizon and moderately acid to neutral in the B and C horizons

A or Ap horizon:

Color—hue of 5YR or 7.5YR, value of 3 to 5, and chroma of 2 to 6; where value is less than 4, horizon is less than 6 inches thick

Texture—sandy loam

BE or BA horizon (if it occurs):

Color—hue of 5YR, value of 3 to 5, and chroma of 4 to 6

Texture—sandy clay loam or clay loam

Bt horizon (upper part):

Color—hue of 2.5YR or 5YR, value of 3 to 6, and chroma of 4 to 8

Texture—clay

Bt horizon (lower part):

Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 6 to 8

Texture—clay

Lithochromic mottles—in shades of brown, yellow, and red

BCt horizon:

Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam; horizon contains as much as 25 percent saprolite

Lithochromic mottles—in shades of brown, yellow, and red

C horizon:

Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8

Texture—saprolite weathered from mafic crystalline rock that varies in texture;
typically loamy

Lithochromic mottles—in shades of brown, yellow, and red

Pacolet Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Materials weathered mostly from acid crystalline rocks

Landform: Uplands

Slope range: 6 to 50 percent

Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Associated Soils

- Cecil and Davidson soils, which have clayey Bt horizons that are more than 24 inches thick
- Mecklenburg, Winnsboro, and Wynott soils, which have mixed mineralogy and have base saturation greater than 35 percent
- Rion soils, which are fine-loamy and have mixed mineralogy

Typical Pedon

Pacolet sandy loam, 15 to 25 percent slopes, moderately eroded; Union County, South Carolina; about 11.5 miles southwest of Union from the junction of County Road 196 and Forest Service Road 345-A, south on Forest Service Road 345-A for 2 miles, 90 degrees east for 1,150 feet; USGS topographic quadrangle, Sedalia, SC (1969); lat. 34 degrees 34 minutes 22 seconds N. and long. 81 degrees 44 minutes 06 seconds W.

A—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; strongly acid; abrupt smooth boundary.

Bt1—2 to 15 inches; red (2.5YR 4/8) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and medium roots throughout; few fine mica flakes; common distinct clay films on all faces of peds; strongly acid; gradual wavy boundary.

Bt2—15 to 26 inches; red (2.5YR 4/8) clay loam; few medium prominent strong brown (7.5YR 5/6) lithochromic mottles; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine roots throughout; few fine mica flakes; common distinct clay films on all faces of peds; strongly acid; gradual wavy boundary.

BCt—26 to 43 inches; red (2.5YR 5/8) clay loam; common medium prominent strong brown (7.5YR 5/6) lithochromic mottles; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine roots between peds; common fine mica flakes; few faint clay films on all faces of peds; strongly acid; gradual wavy boundary.

C—43 to 80 inches; red (2.5YR 5/8) loam; common medium prominent strong brown (7.5YR 5/6) lithochromic mottles; friable, slightly sticky, slightly plastic; common fine mica flakes; strongly acid.

Range in Characteristics

Thickness of the Bt horizon: At least 12 inches; horizon extends from a depth of 18 to 30 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 15 percent in the A, E, and Bt horizons; dominantly gravel

Content of mica flakes: Few or common in the A, E, Bt, and BCt horizons and few to many in the C horizon

Reaction: Very strongly acid to slightly acid in the A horizon, except where lime has been applied, and very strongly acid to moderately acid throughout the rest of the profile

A or Ap horizon:

Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 2 to 6; hue ranges to 2.5YR and chroma ranges to 8 in eroded areas

Texture—sandy loam; sandy clay loam in severely eroded areas

E horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—loamy sand, sandy loam, or fine sandy loam

BA or BE horizon (if it occurs):

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam

Bt horizon (upper part):

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam

Bt horizon (lower part):

Color—hue of 2.5YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay or clay loam

Lithochromic mottles—in shades of yellow and brown

BCt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay loam, sandy clay loam, loam, or sandy loam

Lithochromic mottles—in shades of red, yellow, and brown

C horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—loamy saprolite weathered from felsic crystalline rock

Lithochromic mottles—in shades of red, yellow, and brown

Prosperity Series

Depth class: Moderately deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum weathered from a mixture of felsic, intermediate, or mafic igneous or high-grade metamorphic rocks, such as aplitic granite or granite gneiss that is cut by dykes of gabbro and diorite or mixed with hornblende schist or hornblende gneiss

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine, mixed, semiactive, thermic Aquic Hapludults

Associated Soils

- Cecil and Pacolet soils, which are well drained and have kaolinitic mineralogy

- Hard Labor soils, which have iron depletions that have chroma of 2 or less below a depth of 30 inches
- Helena soils, which do not have a paralithic contact
- Bush River soils, which have a paralithic contact at depths of 40 to 60 inches
- Rion and Santuc soils, which contain less clay in the particle-size control section than the Prosperity soils
- Winnsboro and Wynott soils, which have base saturation greater than 35 percent

Typical Pedon

Prosperity sandy loam, 2 to 6 percent slopes; Newberry County, South Carolina; about 5.0 miles southeast of Whitmire from the junction of United States Highway 176 and a gravel road (McCullough Road), east on McCullough Road for 0.6 mile, 55 degrees northeast on another gravel road (Wallace Road) for 300 feet, 27 degrees northeast on a gated gravel road for 871 feet, 349 degrees for 93 feet; USGS topographic quadrangle, Whitmire South, SC (1969); lat. 34 degrees 27 minutes 22 seconds N. and long. 81 degrees 34 minutes 01 second W.

- A—0 to 6 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; common fine and medium and few coarse roots throughout; strongly acid; abrupt wavy boundary.
- Bt1—6 to 15 inches; strong brown (7.5YR 5/8) clay; moderate medium subangular blocky structure; very firm, moderately sticky, moderately plastic; common fine and medium and few coarse roots throughout; common medium distinct brownish yellow (10YR 6/6) and few medium faint yellowish red (5YR 5/8) masses of oxidized iron; common distinct clay films on all faces of peds; strongly acid; clear wavy boundary.
- Bt2—15 to 21 inches; brownish yellow (10YR 6/6) clay; moderate medium subangular blocky structure parting to weak thick platy; very firm, moderately sticky, moderately plastic; common fine and medium roots between peds; few medium distinct pale brown (10YR 6/3) iron depletions; common medium faint strong brown (7.5YR 5/6) masses of oxidized iron; common distinct clay films on top faces of peds; strongly acid; gradual wavy boundary.
- Bt3—21 to 29 inches; yellowish brown (10YR 5/8), light gray (10YR 7/1), and reddish yellow (7.5YR 6/8) clay; moderate thick platy structure; firm, moderately sticky, moderately plastic; common fine and medium roots between peds; few distinct clay films on top faces of peds; strongly acid; gradual wavy boundary.
- BCt—29 to 35 inches; yellowish brown (10YR 5/8), light gray (10YR 7/1), and reddish yellow (7.5YR 6/8) sandy clay loam; moderate thick platy structure; firm, slightly sticky, slightly plastic; few fine roots between peds; few distinct clay films on top faces of peds; very strongly acid; gradual wavy boundary.
- Crt—35 to 80 inches; yellowish brown (10YR 5/8), light gray (10YR 7/1), and reddish yellow (7.5YR 6/8) soft bedrock that crushes to sandy loam; platy rock structure; massive; nonsticky, nonplastic; few fine roots in cracks; few distinct clay films on surfaces along root channels; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to soft bedrock: 20 to 40 inches

Content of coarse fragments: 0 to 15 percent gravel throughout the profile

Content of dark concretions: None to common in the upper part of the profile

Reaction: Very strongly acid to moderately acid, except where lime has been applied; limed areas typically range to slightly acid in the upper part

Soil Survey of Newberry County, South Carolina

A or Ap horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4

Texture—sandy loam

E horizon (if it occurs):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 or 4

Texture—sandy loam

Bt horizon (upper part):

Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8

Texture—clay; thin subhorizons of sandy clay loam in some pedons

Redoximorphic features—iron depletions in shades of gray within 24 inches of the upper boundary of the horizon; masses of oxidized iron in shades of yellow, brown, and red

Bt horizon (lower part):

Color—hue of 5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8

Texture—clay; thin subhorizons of sandy clay loam in some pedons

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of yellow, brown, and red

Btg horizon (if it occurs):

Color—hue of 10YR, value of 6, and chroma of 1

Texture—clay

Redoximorphic features—masses of oxidized iron in shades of yellow, brown, and red

BCt horizon:

Color—hue of 5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8

Texture—clay loam or sandy clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of yellow, brown, and red

BCg horizon (if it occurs):

Color—hue of 10YR, value of 6, and chroma of 1

Texture—clay loam or sandy clay loam

Redoximorphic features—masses of oxidized iron in shades of yellow, brown, and red

C horizon (if it occurs):

Color—hue of 10YR and value and chroma of 6

Texture—saprolite that has texture of sandy loam; bodies or seams of clay loam or clay in some pedons

Lithochromic mottles—in shades of gray, yellow, brown, red, and white

Crt horizon:

Type of bedrock—soft igneous or metamorphic felsic rock

Rion Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum weathered from acid crystalline rocks

Landform: Uplands

Slope range: 6 to 50 percent

Taxonomic class: Fine-loamy, mixed, semiactive, thermic Typic Hapludults

Associated Soils

- Cecil, Hard Labor, Pacolet, Winnsboro, and Wynott soils, which contain more clay in the particle-size control section than the Rion soils

Typical Pedon

Rion sandy loam, 15 to 25 percent slopes, moderately eroded; Union County, South Carolina; about 8.5 miles southwest of Union from the junction of Forest Service Roads 323 and 324, generally northeast of Forest Service Road 324 for 0.9 mile, 270 degrees west for 550 feet; USGS topographic quadrangle, Sedalia, SC (1969); lat. 34 degrees 36 minutes 01 second N. and long. 81 degrees 42 minutes 34 seconds W.

A—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; moderately acid; abrupt smooth boundary.

E—2 to 4 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; strongly acid; abrupt wavy boundary.

Bt1—4 to 20 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; few fine mica flakes; few faint clay films on all faces of peds; strongly acid; gradual wavy boundary.

Bt2—20 to 25 inches; strong brown (7.5YR 5/6) sandy clay loam; few fine distinct reddish yellow (7.5YR 6/8) lithochromic mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots throughout; common fine mica flakes; few faint clay films on all faces of peds; strongly acid; gradual wavy boundary.

BCt—25 to 35 inches; yellowish brown (10YR 5/6) sandy clay loam; common fine distinct light yellowish brown (10YR 6/4) and few fine distinct yellowish brown (10YR 5/4) lithochromic mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots throughout; common fine mica flakes; few faint clay films on all faces of peds; strongly acid; gradual wavy boundary.

C1—35 to 48 inches; light yellowish brown (10YR 6/4) sandy loam; common medium distinct very dark grayish brown (10YR 3/2) lithochromic mottles; massive; friable, nonsticky, nonplastic, few fine and medium roots throughout; common fine mica flakes; strongly acid; gradual wavy boundary.

C2—48 to 80 inches; dark yellowish brown (10YR 4/4) sandy loam; common medium distinct very pale brown (10YR 7/3) and common medium faint yellowish brown (10YR 5/4) lithochromic mottles; massive; friable, nonsticky, nonplastic; common fine mica flakes; strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 10 percent

Surface stoniness: Stones or boulders in some pedons

Content of mica flakes: None to common in the A and B horizons and none to many in the C horizon below a depth of 40 inches

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

A horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 6; where value ranges to 3, horizon is less than 6 inches thick

Texture—sandy loam

E horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—loamy sand or sandy loam

Bt horizon:

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—sandy clay loam or clay loam

Lithochromic mottles—in shades of brown, red, yellow, and gray

BCt horizon:

Color—hue of 2.5YR to 10YR, value of 5 or 6, and chroma of 6 to 8

Texture—loam, clay loam, or sandy clay loam

Lithochromic mottles—in shades of red, brown, yellow, gray, and white

C horizon:

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—loamy sand, sandy loam, fine sandy loam, or sandy clay loam

Lithochromic mottles—in shades of red, brown, yellow, gray, and white

Santuc Series

Depth class: Very deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum weathered from mixed acid crystalline rocks

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine-loamy, mixed, semiactive, thermic Aquic Hapludults

Associated Soils

- Cecil, Hard Labor, Helena, Bush River, Pacolet, and Prosperity soils, which contain more clay in the particle-size control section than the Santuc soils
- Rion soils, which are well drained

Typical Pedon

Santuc loamy coarse sand, 2 to 6 percent slopes; Union County, South Carolina; about 9.0 miles north of Whitmire from the junction of County Roads 24 and 132, southwest on County Road 132 for 1.24 miles, 90 degrees east for 50 feet; USGS topographic quadrangle, Union East, SC (1971); lat. 34 degrees 38 minutes 07 seconds N. and long. 81 degrees 34 minutes 46 seconds W.

A—0 to 3 inches; dark grayish brown (10YR 4/2) loamy coarse sand; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; extremely acid; clear smooth boundary.

E—3 to 9 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; common fine and few medium roots throughout; very strongly acid; clear smooth boundary.

Bt1—9 to 14 inches; yellowish brown (10YR 5/4) sandy loam; weak medium angular blocky structure; friable, nonsticky, nonplastic; few fine and medium roots throughout; few faint clay films on all faces of peds; extremely acid; gradual smooth boundary.

Bt2—14 to 26 inches; yellowish brown (10YR 5/4) sandy clay loam; moderate coarse subangular and angular blocky structure; firm, moderately sticky, moderately plastic; few fine and medium roots throughout; common medium prominent reddish yellow (7.5YR 6/8) and few medium prominent yellowish red (5YR 5/8)

masses of oxidized iron; many distinct clay films on all faces of peds; 2 percent quartz pebbles; extremely acid; clear smooth boundary.

Bt3—26 to 41 inches; brownish yellow (10YR 6/6) clay loam; weak coarse prismatic structure parting to strong coarse angular blocky; very firm, moderately sticky, moderately plastic; few fine and medium roots between peds; common coarse prominent light brownish gray (10YR 6/2) iron depletions; common coarse distinct yellow (10YR 7/8) masses of oxidized iron; many prominent light brownish gray (10YR 6/2) clay films on all faces of peds; extremely acid; clear smooth boundary.

BCt—41 to 51 inches; yellow (10YR 7/8) loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; few fine roots between peds; many coarse prominent very pale brown (10YR 8/3) and common medium prominent light brownish gray (10YR 6/2) and light gray (10YR 7/1) iron depletions; few distinct clay films on all faces of peds; extremely acid; clear wavy boundary.

C—51 to 80 inches; very pale brown (10YR 8/4) sandy loam; massive; friable, nonsticky, nonplastic; common medium distinct light brownish gray (10YR 6/2) iron depletions; many medium prominent yellow (10YR 7/8) and few coarse prominent reddish yellow (7.5YR 6/8) masses of oxidized iron; extremely acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches or more

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 10 percent in the A and E horizons and 0 to 5 percent in the B and C horizons

Content of mica flakes: None or few in the Bt and C horizons

Reaction: Extremely acid to strongly acid, except where lime has been applied

A or Ap horizon:

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—loamy coarse sand

E horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—loamy sand or sandy loam

Bt horizon (upper part):

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray in the upper 24 inches of the horizon; masses of oxidized iron in shades of red, yellow, and brown

Bt horizon (lower part):

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy loam, sandy clay loam, clay loam, or clay

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown

BCt horizon:

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 4 to 8

Texture—loam or sandy clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown

C horizon:

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 3 to 6

Texture—sandy loam, loam, or sandy clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown

Sedgefield Series

Depth class: Very deep

Drainage class: Moderately well drained and somewhat poorly drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum weathered from intermediate and mafic crystalline rocks

Landform: Uplands

Slope range: 0 to 4 percent

Taxonomic class: Fine, mixed, active, thermic Aquultic Hapludalfs

Associated Soils

- Cecil, Hard Labor, Helena, Bush River, Prosperity, and Santuc soils, which have base saturation less than 35 percent
- Mecklenburg soils, which are redder than the Sedgefield soils
- Wilkes, Winnsboro, and Wynott soils, which are well drained and have a paralithic contact at a depth of less than 60 inches

Typical Pedon

Sedgefield sandy loam, 0 to 4 percent slopes; Newberry County, South Carolina; about 9.0 miles west of Newberry from the junction of United States Highway 76 and County Road 64, southwest on County Road 64 for 0.83 mile, generally northwest on a dirt road (Gary-Young Road) for 0.68 mile and then generally southwest on the same dirt road for 0.57 mile, 2 degrees north for 95 feet; USGS topographic quadrangle, Bush River, SC (1970); lat. 34 degrees 20 minutes 59 seconds N. and long. 81 degrees 45 minutes 31 seconds W.

A—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; slightly acid; clear wavy boundary.

E—2 to 10 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; slightly acid; clear wavy boundary.

BE—10 to 13 inches; brown (10YR 5/3) sandy clay loam; weak fine angular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots throughout; slightly acid; clear wavy boundary.

Bt1—13 to 15 inches; yellowish brown (10YR 5/4) clay; moderate medium angular blocky structure; very firm, very sticky, very plastic; common fine and few medium roots between peds; few medium distinct light brownish gray (10YR 6/2) iron depletions; few fine distinct brownish yellow (10YR 6/6) masses of oxidized iron; common prominent clay films on all faces of peds; slightly acid; clear wavy boundary.

Bt2—15 to 25 inches; yellowish brown (10YR 5/4) clay; moderate medium angular blocky structure; very firm, very sticky, very plastic; common fine and few medium roots between peds; many medium distinct light brownish gray (10YR 6/2) iron depletions; common prominent clay films on all faces of peds; neutral; clear wavy boundary.

Bt3—25 to 28 inches; light yellowish brown (10YR 6/4) clay; moderate medium angular blocky structure; very firm, very sticky, very plastic; common fine and few medium roots between peds; many medium prominent greenish gray (5GY 5/1) iron depletions; common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron; few distinct clay films on all faces of peds; neutral; gradual wavy boundary.

BCt—28 to 32 inches; olive (5Y 5/3) sandy clay loam; weak fine angular blocky structure; firm, moderately sticky, moderately plastic; common fine and few medium roots between peds; many medium prominent white (10YR 8/1) and

greenish gray (5GY 5/1) iron depletions; few medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few distinct clay films on surfaces along root channels; slightly alkaline; gradual wavy boundary.

C—32 to 80 inches; white (10YR 8/1), greenish gray (5G 5/1), and light olive brown (2.5Y 5/6) sandy loam; massive; very friable, nonsticky, nonplastic; common fine and few medium roots throughout; slightly alkaline.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 15 percent in the surface layers

Reaction: Very strongly acid to slightly acid in the A horizon and the upper part of the Bt horizon and moderately acid to moderately alkaline in the lower part of the Bt horizon and in the C horizon

A or Ap horizon:

Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 to 4

Texture—sandy loam

E horizon (if it occurs):

Color—hue of 10YR, value of 5 to 7, and chroma of 3 or 4

Texture—sandy loam

BA or BE horizon (if it occurs):

Color—hue of 10YR, value of 5, and chroma of 3

Texture—sandy clay loam

Bt horizon:

Color—hue of 7.5YR to 5Y, value of 5 or 6, and chroma of 3 to 8

Texture—clay loam or clay; clay content ranges from 35 to 60 percent

Redoximorphic features—iron depletions in shades of gray in the upper 10 inches of the horizon

BCt horizon:

Color—hue of 7.5YR to 5Y, value of 5 to 7, and chroma of 3 to 8

Texture—sandy clay loam, clay loam, or loam

Redoximorphic features—iron depletions in shades of gray

BCg horizon (if it occurs):

Color—hue of 7.5YR to 5Y, value of 5 to 7, and chroma of 1 or 2

Texture—sandy clay loam, clay loam, or loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, brown, and yellow

C horizon:

Color—hue of 7.5YR to 5Y, value of 5 to 7, and chroma of 3 to 8

Texture—saprolite that weathered from intermediate and mafic crystalline rocks; variable in texture but generally loamy

Cg horizon (if it occurs):

Color—hue of 7.5YR to 5Y, value of 5 to 7, and chroma of 1 or 2

Texture—saprolite that weathered from intermediate and mafic crystalline rocks; variable in texture but generally loamy

Shellbluff Series

Depth class: Very deep

Drainage class: Moderately well drained and well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Alluvium

Landform: Flood plains

Slope range: 0 to 2 percent

Taxonomic class: Fine-silty, mixed, active, thermic Oxyaquic Dystrudepts

Associated Soils

- Cartecay soils, which are coarse-loamy and have iron depletions that have chroma of 2 or less within a depth of 20 inches
- Chenneby soils, which have iron depletions that have chroma of 2 or less within a depth of 24 inches
- Toccoa soils, which are coarse-loamy

Typical Pedon

Shellbluff silty clay loam, 0 to 2 percent slopes, frequently flooded; Laurens County, South Carolina; about 7.5 miles northwest of Whitmire from the junction of Forest Service Roads 333 and 333-A, north on Forest Service Road 333-A to the end of the road, 308 degrees north for 720 feet; USGS topographic quadrangle, Sedalia, SC (1969); lat. 34 degrees 33 minutes 20 seconds N. and long. 81 degrees 44 minutes 06 seconds W.

A—0 to 4 inches; brown (10YR 4/3) silty clay loam; weak medium granular structure; friable, slightly sticky, slightly plastic; many fine and few medium roots throughout; very strongly acid; abrupt smooth boundary.

Bw1—4 to 17 inches; brown (7.5YR 4/4) silty clay loam; weak coarse subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium and coarse roots throughout; few fine pores; few coarse faint yellowish brown (10YR 5/4) masses of oxidized iron; very strongly acid; clear smooth boundary.

Bw2—17 to 32 inches; brown (7.5YR 4/4) silty clay loam; weak coarse subangular blocky structure; friable, slightly sticky, slightly plastic; some color stratification; common fine and few medium roots throughout; common medium faint brown (10YR 5/3) iron depletions; few fine faint dark yellowish brown (10YR 3/4) masses of oxidized iron; few fine mica flakes; few organic stains on faces of peds; strongly acid; clear smooth boundary.

Bw3—32 to 44 inches; brown (7.5YR 4/4) silty clay loam; weak coarse subangular blocky structure; friable, slightly sticky, slightly plastic; some color stratification; few fine roots throughout; few medium distinct grayish brown (10YR 5/2) iron depletions; few medium faint dark yellowish brown (10YR 3/4) masses of oxidized iron; few fine mica flakes; few organic stains on faces of peds; strongly acid; clear smooth boundary.

C—44 to 60 inches; brown (7.5YR 4/4) silty clay loam; massive; friable, slightly sticky, slightly plastic; few fine roots throughout; common medium distinct grayish brown (10YR 5/2) iron depletions; common medium faint yellowish brown (10YR 5/4) masses of oxidized iron; few fine mica flakes; few organic stains; strongly acid; abrupt smooth boundary.

Cg—60 to 80 inches; gray (10YR 5/1) silty clay loam; massive; friable, slightly sticky, slightly plastic; common medium distinct brown (10YR 4/3) and few fine prominent brown (7.5YR 4/4) masses of oxidized iron; few fine mica flakes; strongly acid.

Range in Characteristics

Thickness of the solum: 20 to more than 40 inches

Depth to bedrock: More than 60 inches

Reaction: Very strongly acid to slightly acid throughout the profile, except where lime has been applied

Content of mica flakes: None to common in the A and B horizons and few or common in the C horizon

A horizon:

Color—hue of 5YR to 10YR, value of 3 or 4, and chroma of 3; where value is 3, horizon is less than 6 inches thick

Texture—silty clay loam

Bw horizon:

Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 8

Texture—silty clay loam or loam

Redoximorphic features—iron depletions in shades of gray at depths of 24 inches or more; masses of oxidized iron in shades of red, brown, and yellow

C horizon:

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 to 8

Texture—silty clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, brown, and yellow

Cg horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 1 or 2

Texture—silty clay loam

Redoximorphic features—masses of oxidized iron in shades of yellow and brown

Toccoa Series

Depth class: Very deep

Drainage class: Moderately well drained and well drained

Saturated hydraulic conductivity: High

Parent material: Alluvium

Landform: Flood plains

Slope range: 0 to 4 percent

Taxonomic class: Coarse-loamy, mixed, active, nonacid, thermic Typic Udifluvents

Associated Soils

- Cartecay soils, which have iron depletions that have chroma of 2 or less within a depth of 20 inches
- Chenneby and Shellbluff soils, which are fine-silty

Typical Pedon

Toccoa sandy loam, 0 to 4 percent slopes, frequently flooded; Union County, South Carolina; about 2.5 miles north of Whitmire from the junction of United States Highway 176 and Padgetts Creek, southeast 225 feet along the south bank of Padgetts Creek, 8 degrees south for 100 feet; USGS topographic quadrangle, Whitmire North, SC (1970); lat. 34 degrees 32 minutes 48 seconds N. and long. 81 degrees 36 minutes 13 seconds W.

A—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, slightly sticky, slightly plastic; many fine and common medium roots throughout; few fine mica flakes; moderately acid; abrupt smooth boundary.

C1—2 to 17 inches; yellowish red (5YR 5/6) sandy loam; massive; very friable, slightly sticky, slightly plastic; common fine and medium roots throughout; few fine mica flakes; strongly acid; abrupt smooth boundary.

C2—17 to 24 inches; strong brown (7.5YR 5/6) sandy loam; massive; very friable,

nonsticky, nonplastic; few fine and medium roots throughout; common fine mica flakes; thin strata of loamy sand; strongly acid; abrupt smooth boundary.

C3—24 to 42 inches; brown (10YR 5/3) sandy loam; massive; very friable, nonsticky, nonplastic; few fine and medium roots throughout; common medium prominent strong brown (7.5YR 5/6) masses of oxidized iron; common fine mica flakes; bedding planes and thin strata of loamy sand; moderately acid; abrupt smooth boundary.

C4—42 to 80 inches; brown (10YR 5/3) and light grayish brown (10YR 6/2) loam; massive; very friable, slightly sticky, slightly plastic; few fine roots throughout; common medium distinct brown (7.5YR 4/4) masses of oxidized iron; common fine mica flakes; thin strata of sandy loam or loam; moderately acid.

Range in Characteristics

Depth to bedrock: More than 60 inches

Coarse fragments (content, size): 0 to 5 percent throughout the profile; commonly gravel

Content of mica flakes: Few to many throughout the profile

Content of clay: Average of 8 to 18 percent in the 10- to 40-inch particle-size control section

Other characteristics: Bedding planes and thin strata of sandy or loamy texture throughout the C horizon

Reaction: Strongly acid to slightly acid, except where lime has been applied; all pedons have a subhorizon in the 10- to 40-inch particle-size control section that is moderately acid or slightly acid

A horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 6; where value is less than 4, horizon is less than 6 inches thick

Texture—sandy loam

C horizon (upper part):

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—sandy loam or fine sandy loam; thin horizons, commonly less than 12 inches thick, of sand, loamy sand, loam, or sandy clay loam in some pedons; gravelly strata in some pedons typically below a depth of 40 inches

Redoximorphic features—iron depletions in shades of gray below a depth of 20 inches

C horizon (lower part):

Color—hue of 5YR to 10YR, value of 3 to 6, and chroma of 3 to 8

Texture—sandy loam or fine sandy loam; thin horizons, commonly less than 12 inches thick, of sand, loamy sand, loam, or sandy clay loam in some pedons; gravelly strata in some pedons, generally below a depth of 40 inches

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown and yellow

Wilkes Series

Depth class: Shallow

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum weathered from intermediate and mafic crystalline rocks

Landform: Uplands

Slope range: 10 to 25 percent

Taxonomic class: Loamy, mixed, active, thermic, shallow Typic Hapludalfs

Associated Soils

- Mecklenburg, Pacolet, Rion, Winnsboro, and Wynott soils, which have a thicker solum than the Wilkes soils

Typical Pedon

Wilkes sandy loam, 15 to 25 percent slopes, moderately eroded; Union County, South Carolina; about 2.0 miles east of Whitmire from the junction of County Road 45 and Forest Service Road 392-C, southwest on Forest Service Road 392-C for 1.15 miles, 360 degrees north for 800 feet; USGS topographic quadrangle, Whitmire North, SC (1970); lat. 34 degrees 30 minutes 30 seconds N. and long. 81 degrees 34 minutes 51 seconds W.

A—0 to 2 inches; very dark grayish brown (10YR 3/2) sandy loam; weak fine granular structure; very friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; moderately acid; abrupt smooth boundary.

E—2 to 4 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; very friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; moderately acid; abrupt smooth boundary.

Bt—4 to 15 inches; yellowish brown (10YR 5/4) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and common medium roots throughout; few fine mica flakes; few faint clay films on all faces of peds; moderately acid; clear wavy boundary.

BC—15 to 18 inches; yellowish brown (10YR 5/6) sandy loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots throughout; few fine mica flakes; slightly acid; clear wavy boundary.

Cr—18 to 45 inches; yellowish brown (10YR 5/4) saprolite that crushes to coarse sand; few fine and medium faint light yellowish brown (10YR 6/4) lithochromic mottles; platy rock structure; few fine roots in cracks; neutral; clear wavy boundary.

R—45 inches; hard bedrock.

Range in Characteristics

Thickness of the solum: 10 to 20 inches

Depth to soft bedrock: 10 to 20 inches

Depth to hard bedrock: 40 to more than 60 inches

Content of coarse fragments: 0 to 15 percent in the A horizon and 0 to 10 percent in the B horizon

Content of dark concretions: None to common

Content of clay: Average of 18 to 35 percent for the combined A, Bt, and C horizons

Reaction: Strongly acid to slightly acid in the upper horizons and moderately acid to slightly alkaline in the lower horizons

A horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—sandy loam

E horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—sandy loam or loam

Bt horizon:

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture (fine-earth fraction)—sandy clay loam, clay loam, or clay

Lithochromic mottles—in shades of black, green, gray, and white

BC horizon:

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 6

Texture—sandy loam or sandy clay loam

Lithochromic mottles—in shades of black, green, gray, and white

C horizon (if it occurs):

Color—hue of 7.5YR to 5Y and value and chroma of 3 to 8

Texture—sandy loam saprolite of intermediate or mafic crystalline rock

Cr horizon:

Type of bedrock—soft intermediate or mafic crystalline rock that can be dug with difficulty with a spade

R layer:

Type of bedrock—hard intermediate or mafic crystalline bedrock

Winnsboro Series

Depth class: Deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Materials weathered from dark, basic rocks

Landform: Uplands

Slope range: 2 to 10 percent

Taxonomic class: Fine, mixed, active, thermic Typic Hapludalfs

Associated Soils

- Cecil, Mecklenburg, and Pacolet soils, which have a redder subsoil than the Winnsboro soils
- Rion soils, which have base saturation of less than 35 percent
- Wilkes soils, which have a solum less than 20 inches thick
- Wynott soils, which have paralithic contact at a depth of 20 to 40 inches

Typical Pedon

Winnsboro sandy loam, 6 to 10 percent slopes, moderately eroded; Union County, South Carolina; about 11.0 miles northwest of Whitmire from the junction of South Carolina Highway 49 and County Road 18, east on County Road 18 for 1.2 miles, south on an unnumbered County Road for 0.5 mile, south on a logging road for 0.25 mile, southeast on the logging road for 0.45 mile, 106 degrees east for 82 feet; USGS topographic quadrangle, Philson Crossroads, SC (1969); lat. 34 degrees 36 minutes 36 seconds N. and long. 81 degrees 45 minutes 49 seconds W.

A—0 to 4 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; strongly acid; abrupt smooth boundary.

Bt1—4 to 17 inches; light olive brown (2.5Y 5/4) clay; moderate coarse angular blocky structure; very firm, very sticky, very plastic; common fine and few medium roots throughout; common distinct clay films on all faces of peds; few dark concretions; slightly acid; gradual smooth boundary.

Bt2—17 to 25 inches; yellowish brown (10YR 5/8) clay; moderate coarse angular blocky structure; very firm, very sticky, very plastic; few fine roots throughout; few fine mica flakes; common distinct clay films on all faces of peds; few dark concretions; slightly acid; gradual smooth boundary.

BC—25 to 32 inches; yellowish brown (10YR 5/6) sandy clay loam; common fine prominent very dark grayish brown (10YR 3/2) and few fine distinct brownish yellow (10YR 6/8) lithochromic mottles; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine roots between peds;

common fine mica flakes; few dark concretions; slightly acid; clear smooth boundary.

C—32 to 52 inches; yellowish brown (10YR 5/6) sandy loam; many fine prominent very dark grayish brown (10YR 3/2) and few fine faint yellow (10YR 7/6) lithochromic mottles; massive; friable, nonsticky, nonplastic; few fine roots between peds; common fine mica flakes; slightly acid; gradual wavy boundary.

Cr—52 to 80 inches; yellowish brown (10YR 5/4) saprolite that crushes to coarse sandy loam; many fine distinct yellow (10YR 7/6) and common fine distinct very dark grayish brown (10YR 3/2) lithochromic mottles; common fine mica flakes; neutral.

Range in Characteristics

Depth to soft bedrock: 40 to 60 inches

Content of coarse fragments: 0 to 10 percent throughout the profile

Content of dark concretions: None to common

Reaction: Strongly acid to slightly acid in the A horizon and slightly acid to slightly alkaline in the B and C horizons

A horizon:

Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4; where value is 3, horizon is less than 6 inches thick

Texture—sandy loam

E horizon (if it occurs):

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 8

Texture—sandy loam

Bt horizon:

Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8

Texture—clay or clay loam

BC horizon:

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam or clay loam

Lithochromic mottles—in shades of yellow, brown, olive, and black

C horizon:

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—sandy loam, loam, sandy clay loam, or clay loam

Lithochromic mottles—in shades of yellow, brown, olive, and black

Cr horizon:

Type of bedrock—multicolored white, yellow, brown, gray, and black soft rock material that crushes to sandy loam, loam, or sandy clay loam

Worsham Series

Depth class: Very deep

Drainage class: Poorly drained

Saturated hydraulic conductivity: Very low

Parent material: Local alluvium at the heads of drainageways

Landform: Uplands

Slope range: 0 to 2 percent

Taxonomic class: Fine, mixed, active, thermic Typic Endoaqualfs

Associated Soils

- Cecil, Winnsboro, and Wynnott soils, which are well drained

- Hard Labor, Helena, Bush River, Prosperity, and Santuc soils, which are moderately well drained

Typical Pedon

Worsham loam, 0 to 2 percent slopes; Newberry County, South Carolina; about 10.0 miles northwest of Newberry from the junction of County Roads 510 and 64, southwest on County Road 510 for 0.25 mile, northwest on a gravel road (Larkin Jackson Road) for 0.30 mile, 18 degrees northeast for 475 feet; USGS topographic quadrangle, Bush River, SC (1970); lat. 34 degrees 18 minutes 40 seconds N. and long. 81 degrees 46 minutes 18 seconds W.

Ap—0 to 5 inches; dark grayish brown (10YR 4/2) loam; moderate medium granular structure; friable, slightly sticky, slightly plastic; many fine and medium roots throughout; slightly acid; clear smooth boundary.

BEg—5 to 17 inches; grayish brown (10YR 5/2) sandy clay loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; few fine and medium roots throughout; few medium distinct light olive brown (2.5Y 5/4) masses of oxidized iron; moderately acid; clear smooth boundary.

Btg1—17 to 42 inches; gray (10YR 5/1) clay; moderate medium subangular blocky structure; very firm, very sticky, very plastic; few fine and medium roots between peds; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; many distinct clay films on all faces of peds; strongly acid; clear smooth boundary.

Btg2—42 to 53 inches; gray (N 5/0) clay; moderate medium subangular blocky structure; very firm, very sticky, very plastic; few fine roots between peds; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few distinct clay films on all faces of peds; very strongly acid; gradual wavy boundary.

BCtg—53 to 60 inches; dark grayish brown (10YR 4/2) sandy clay loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; few fine roots between peds; few medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few faint clay films on surfaces along root channels; moderately acid.

Range in Characteristics

Thickness of the solum: 40 to 80 inches

Depth to bedrock: More than 60 inches

Content of coarse fragments: 0 to 10 percent

Content of mica flakes: None to common in the B and C horizons

Other characteristics: Clay content from 35 to 55 percent in the particle-size control section; silt content less than 30 percent

Reaction: Very strongly acid to slightly alkaline

A or Ap horizon:

Color—hue of 10YR, value of 2 to 5, and chroma of 0 to 3

Texture—loam

Eg horizon (if it occurs):

Color—hue of 10YR, value of 4 to 6, and chroma of 2

Texture—sandy loam

BEg or EBg horizon:

Color—hue of 10YR, value of 5, and chroma of 1 or 2

Texture—sandy clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown and yellow

Btg horizon:

Color—horizon has hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2 or is neutral in hue and has value of 4 to 6

Texture—clay loam or clay

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown and yellow

BCtg horizon:

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2

Texture—sandy clay loam or clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown and yellow

Cg or 2Cg horizon (if it occurs):

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2

Texture—sandy loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of brown and yellow

The Worsham soils in this survey area are considered taxadjuncts to the series because the base saturation and pH are higher than what is defined for the range for the series. These differences, however, do not significantly affect the use, management, or interpretations of the soils. The Worsham soils are typically fine, mixed, active, thermic Typic Endoaquults.

Wynott Series

Depth class: Moderately deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum from gabbro, diorite, and other dark mafic rocks

Landform: Uplands

Slope range: 2 to 25 percent

Taxonomic class: Fine, mixed, active, thermic Typic Hapludalfs

Associated Soils

- Cecil, Mecklenburg, and Pacolet soils, which have a redder subsoil than the Wynott soils
- Rion soils, which have base saturation less than 35 percent
- Wilkes soils, which have a solum less than 20 inches thick
- Winnsboro soils, which have a paralithic contact at depths of 40 to 60 inches

Typical Pedon

Wynott sandy loam, 6 to 10 percent slopes, moderately eroded; Newberry County, South Carolina; about 5.0 miles northeast of Prosperity from the junction of Interstate 26 and South Carolina Highway 773, north on South Carolina Highway 773 for 2.18 miles, generally north on a gravel road (Wedaman Road) for 0.32 mile, 26 degrees northeast for 8 feet to a road cut; USGS topographic quadrangle, Pomaria, SC (1969); lat. 34 degrees 15 minutes 55.60 seconds N. and long. 81 degrees 26 minutes 37.81 seconds W.

A—0 to 5 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular

structure; friable, nonsticky, nonplastic; common very fine, fine, and medium roots throughout; moderately acid; abrupt smooth boundary.

Bt1—5 to 10 inches; brown (7.5YR 5/4) clay; common medium distinct light yellowish brown (2.5Y 6/4) lithochromic mottles; moderate medium subangular blocky structure; very firm, very sticky, very plastic; common fine and medium roots throughout; common distinct clay films on all faces of peds; moderately acid; clear smooth boundary.

Bt2—10 to 21 inches; yellowish brown (10YR 5/6) clay; few medium distinct light yellowish brown (2.5Y 6/4) lithochromic mottles; moderate medium subangular blocky structure; very firm, very sticky, very plastic; common medium and few fine roots between peds; common distinct clay films on all faces of peds; slightly acid; clear wavy boundary.

BCt—21 to 29 inches; multicolored light olive brown (2.5Y 5/6), dark grayish brown (2.5Y 4/2), and yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; common fine and medium roots between peds; slightly acid; gradual wavy boundary.

Crt—29 to 60 inches; multicolored light olive brown (2.5Y 5/6), dark grayish brown (2.5Y 4/2), and yellowish brown (10YR 5/6) soft basic rock that crushes to sandy loam; difficult to dig with a spade; common fine roots in cracks; few distinct clay films on surfaces along root channels; slightly acid.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to soft bedrock: 20 to 40 inches

Depth to hard bedrock: 40 to more than 60 inches

Content of coarse fragments: 0 to 10 percent in the A horizon and 0 to 15 percent in the B and C horizons

Surface stoniness: Numerous stones or boulders on the soil surface in some areas

Reaction: Very strongly acid to slightly acid, except where lime has been applied

A or Ap horizon:

Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6

Texture—sandy loam

E horizon (if it occurs):

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—sandy loam

Bt horizon:

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—clay loam, sandy clay, or clay

BCt horizon:

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay, sandy clay loam, or clay loam

C horizon (if it occurs):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—variable; commonly sandy loam

Crt horizon:

Type of bedrock—multicolored, soft mafic rock that is partially consolidated but can be dug with difficulty with a spade

R horizon (if it occurs):

Type of bedrock—hard mafic rock

Soils of the Sumter National Forest in Newberry County

Appling Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum from felsic crystalline rocks

Landform: Uplands

Slope range: 2 to 15 percent

Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Associated Soils

- Cataula soils, which have a dense and partially brittle layer in the Btx horizon
- Cecil and Pacolet soils, which have red Bt horizons
- Santuc soils, which have iron depletions with chroma of 2 or less in the top 24 inches of the Bt horizon
- Rion soils, which have less clay in the subsoil than the Appling soils

Typical Pedon

Appling loamy sand, 2 to 7 percent slopes; Newberry County, South Carolina; about 3.1 miles southwest of Whitmire, 0.36 miles southwest of the junction of State Highway 66 and County Road 36, about 0.7 mile west-northwest of the junction of County Roads 36 and 86, about 325 feet northwest of State Highway 66; USGS topographic quadrangle, Newberry NW, SC (1969); lat. 34 degrees 28 minutes 00 seconds N. and long. 81 degrees 38 minutes 32 seconds W.

A—0 to 6 inches; brown (10YR 5/3) loamy sand; weak fine granular structure; very friable, nonsticky, nonplastic; common fine and medium roots; very strongly acid; abrupt smooth boundary.

BA—6 to 9 inches; yellowish brown (10YR 5/6) and light yellowish brown (10YR 6/4) fine sandy loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; common fine and medium roots; strongly acid; clear smooth boundary.

Bt1—9 to 21 inches; yellowish red (5YR 5/8) clay; few fine distinct reddish yellow (7.5YR 6/8) and few medium distinct red (2.5YR 5/8) lithochromic mottles; strong coarse angular and subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots; few faint clay films on faces of peds; few fine flakes of mica; strongly acid; gradual wavy boundary.

Bt2—21 to 33 inches; yellowish red (5YR 5/8) clay loam; common fine distinct reddish yellow (7.5YR 7/8) lithochromic mottles; moderate coarse angular and subangular blocky structure; friable, moderately sticky, moderately plastic; few fine roots; few faint clay films on faces of peds; few fine flakes of mica; strongly acid; clear wavy boundary.

BC1—33 to 43 inches; yellowish red (5YR 5/8) sandy clay loam; common coarse distinct red (2.5YR 5/6) and few fine prominent reddish yellow (7.5YR 7/6) lithochromic mottles; weak coarse angular and subangular blocky structure; friable, moderately sticky, moderately plastic; few fine roots; strongly acid; diffuse irregular boundary.

BC2—43 to 80 inches; reddish yellow (5YR 6/8) sandy clay loam; few coarse distinct red (2.5YR 4/8) and few fine prominent reddish yellow (7.5YR 7/8) lithochromic mottles; massive and some weak angular and subangular blocky structure; friable; few fine roots; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Depth to bedrock: 72 to 120 inches or more

Reaction: Very strongly acid or strongly acid throughout the profile, except where lime has been applied; limed soils typically are moderately acid or slightly acid in the upper part

Coarse fragments (content, size): 0 to 35 percent in the A horizon and 0 to 10 percent in the Bt horizon; dominantly gravel

Content of mica flakes: Few or common in the A and Bt horizons and few to many in the BC and C horizons

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6

Texture—sandy loam or loamy sand in the fine-earth fraction; eroded phases are sandy clay loam or clay loam

E horizon (if it occurs):

Color—hue of 7.5YR or 10YR and value and chroma of 4 to 6

Texture—sandy loam or loamy sand in the fine-earth fraction

BA or BE horizon:

Color—hue of 5YR to 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam or sandy loam

Bt horizon:

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—sandy clay, clay loam, or clay with thin layers of sandy clay loam; horizon contains 35 to 60 percent clay and less than 30 percent silt and extends to depths of 30 to 60 inches

Lithochromic mottles—mottles in shades of red, yellow, and brown range from few to many in the middle or lower Bt horizon of pedons with hue of 7.5YR or 10YR

BC horizon:

Color—hue of 5YR to 10YR, value of 4 to 7, and chroma of 6 to 8

Texture—clay loam or sandy clay loam

Lithochromic mottles—in shades of red, yellow, and brown

C horizon:

Color—hue of 5YR to 10YR, value of 4 to 7, and chroma of 6 to 8

Texture—saprolite weathered from felsic crystalline rock that typically has a loamy texture

Lithochromic mottles—in shades of red, yellow, and brown

Buncombe Series

Depth class: Very deep

Drainage class: Excessively drained

Saturated hydraulic conductivity: High

Parent material: Sandy alluvium washed from soils that formed in crystalline rocks of the uplands

Landform: Flood plains

Slope range: 0 to 3 percent

Taxonomic class: Mixed, thermic Typic Udipsamments

Associated Soils

- Shellbluff and Toccoa soils, which are loamy and well drained or moderately well drained
- Cartecay and Chenneby soils, which are loamy and contain gray iron depletions

Typical Pedon

Buncombe coarse sand, 0 to 3 percent slopes, rarely flooded; Sumter National Forest, Newberry County, South Carolina; about 17.5 miles southeast of Union in Union County, from the junction of County Roads 37 and 359 travel southeast on County Road 359 to the end of the pavement, south on an unnumbered unpaved road for 0.44 mile, 90 degrees east for 15 feet to the site; USGS topographic quadrangle, Blair, SC (1969); lat. 34 degrees 28 minutes 47 seconds N. and long. 81 degrees 25 minutes 25 seconds W.

- A—0 to 6 inches; dark yellowish brown (10YR 4/4) coarse sand; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; common fine mica flakes; very strongly acid; clear smooth boundary.
- C1—6 to 28 inches; yellowish brown (10YR 5/6) sand; single grained; loose, nonsticky, nonplastic; common fine and medium roots throughout; thin lenses of loamy sand and loam; common fine mica flakes; very strongly acid; abrupt smooth boundary.
- C2—28 to 35 inches; dark yellowish brown (10YR 4/4) coarse sand; single grained; loose, nonsticky, nonplastic; few fine roots throughout; thin strata of black sand; common fine mica flakes; very strongly acid; abrupt smooth boundary.
- C3—35 to 56 inches; pale brown (10YR 6/3) sand; single grained; loose, nonsticky, nonplastic; few fine roots throughout; thin strata of brown and black sand; common fine mica flakes; very strongly acid; clear smooth boundary.
- C4—56 to 80 inches; yellowish brown (10YR 5/4) sand; single grained; loose, nonsticky, nonplastic; common fine mica flakes; very strongly acid.

Range in Characteristics

Depth to bedrock: More than 120 inches

Content of mica flakes: Few to many throughout the profile

Reaction: Very strongly acid to slightly acid

A horizon:

Color—hue of 10YR and value and chroma of 3 or 4

Texture—sand, loamy sand, or loamy fine sand

Bw horizon (if it occurs):

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—sand, loamy sand, or loamy fine sand above a depth of 40 inches; sand to loam or stratified below a depth of 40 inches

C horizon:

Color—hue of 7.5YR or 10YR and value and chroma of 3 to 6

Texture—sand, loamy sand, or loamy fine sand above a depth of 40 inches; sand to loam or stratified below a depth of 40 inches

Cartecay Series

Depth class: Very deep

Drainage class: Somewhat poorly drained

Saturated hydraulic conductivity: High

Parent material: Loamy alluvium

Landform: Flood plains

Slope range: 0 to 2 percent

Taxonomic class: Coarse-loamy, mixed, semiactive, nonacid, thermic Aquic
Udifluvents

Associated Soils

- Buncombe soils, which have a sandy particle-size control section
- Chenneby and Shellbluff soils, which have a particle-size control section that is fine-loamy
- Toccoa soils, which do not have gray iron depletions within a depth of 20 inches

Typical Pedon

Cartecay sandy loam, occasionally flooded; Sumter National Forest, Newberry County, South Carolina; about 1.2 miles north of the junction of State Highway 121 and County Road 81, about 1.1 miles northwest of the junction of U.S. Highway 176 and County Road 81, about 0.4 mile north-northeast of the junction of U.S. Highway 176 and State Highway 121, about 400 feet east of State Highway 121 along Indian Creek; USGS topographic quadrangle, Whitmire South, SC (1969); lat. 34 degrees 24 minutes 45 seconds N. and long. 81 degrees 34 minutes 37 seconds W.

- A—0 to 4 inches; dark brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; few fine mica flakes; moderately acid; abrupt smooth boundary.
- C1—4 to 14 inches; brown (10YR 5/3) sandy loam; massive; very friable, nonsticky, nonplastic; common fine and medium roots throughout; common medium distinct grayish brown (10YR 5/2) and strong brown (7.5YR 4/6) and few fine and medium faint pale brown (10YR 6/3) masses of oxidized iron; thin strata of sand; few fine mica flakes; moderately acid; abrupt smooth boundary.
- C2—14 to 21 inches; gray (10YR 5/1) sandy loam; massive; very friable, nonsticky, nonplastic; few fine and medium roots throughout; common medium prominent strong brown (7.5YR 5/6) masses of oxidized iron; few fine mica flakes; moderately acid; abrupt smooth boundary.
- C3—21 to 35 inches; strong brown (7.5YR 4/6) loamy sand; massive; very friable, nonsticky, nonplastic; few fine roots throughout; thin strata of sand; common coarse prominent gray (10YR 5/1) iron depletions; common fine mica flakes; moderately acid; abrupt smooth boundary.
- C4—35 to 48 inches; gray (10YR 5/1) fine sandy loam; massive; very friable, nonsticky, nonplastic; few fine roots throughout; many coarse prominent strong brown (7.5YR 4/6) masses of oxidized iron; common fine mica flakes; moderately acid; abrupt smooth boundary.
- C5—48 to 80 inches; light yellowish brown (10YR 6/4) coarse sandy loam; massive; very friable, nonsticky, nonplastic; few fine roots throughout; common medium prominent gray (10YR 5/1) iron depletions and few strong brown (7.5YR 4/6) masses of oxidized iron; thin strata of sandy clay loam and loamy sand; few fine mica flakes; moderately acid.

Range in Characteristics

Content of coarse fragments: 0 to 10 percent in the A horizon, 0 to 15 percent in the C horizon, and 2 to 50 percent in the Cg horizon

Reaction: Slightly acid to strongly acid in the particle-size control section, but all pedons have pH of 5.5 or higher in some part

Other characteristics: Thin strata of contrasting textures are throughout the soil; in the

10- to 40-inch particle-size control section, clay content ranges from 8 to 18 percent and there is more than 15 percent sand coarser than very fine sand
Content of mica flakes: Few to many in all horizons

A horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4; some pedons have a surface layer that is less than 6 inches thick and has hue of 10YR, value of 3, and chroma of 3 or 4

Texture—loam, silty clay loam, sandy loam, or loamy sand

C horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6

Texture—horizon is coarse sandy loam, sandy loam, fine sandy loam, or loam and has thin strata of coarser or finer material

Redoximorphic features—iron depletions in shades of gray are within 20 inches of the surface; masses of oxidized iron in shades of brown or yellow

Cg horizon (if it occurs):

Color—hue of 10YR, value of 4 to 6, and chroma of 1 or 2

Texture—sand, loamy sand, sandy loam, loam, or sandy clay loam

Redoximorphic features—iron depletions in shades of gray are within 20 inches of the surface; masses of oxidized iron in shades of brown or yellow

Cataula Series

Depth class: Very deep

Drainage class: Well drained and moderately well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum from acid crystalline rocks

Landform: Uplands

Slope range: 2 to 15 percent

Taxonomic class: Fine, kaolinitic, thermic Oxyaquic Kanhapludults

Associated Soils

- Appling, Cecil, Santuc, Pacolet, and Rion soils, which do not have horizons that are slightly brittle or slightly cemented

Typical Pedon

Cataula sandy clay loam, 7 to 15 percent slopes, moderately eroded; Sumter National Forest, Fairfield County, South Carolina; about 17 miles southeast of Union, from the junction of County Road 99 and U.S. Forest Service Road 407 travel south on County Road 99 for 0.25 mile, 90 degrees east for 290 feet to the site; USGS topographic quadrangle, Carlisle, SC (1983); lat. 34 degrees 31 minutes 37 seconds N. and long. 81 degrees 25 minutes 34 seconds W.

A—0 to 3 inches; brown (7.5YR 5/4) sandy loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and common medium roots throughout; moderately acid; abrupt smooth boundary.

Bt1—3 to 15 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; many fine and few medium and coarse roots throughout; few distinct clay films on faces of pedis; moderately acid; clear wavy boundary.

Bt2—15 to 29 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine and medium and few coarse roots throughout; common distinct clay films on faces of pedis; few fine mica flakes; strongly acid; clear smooth boundary.

- Btx1—29 to 37 inches; red (2.5YR 4/6) clay loam; moderate very coarse angular blocky structure parting to weak thick platy; firm, slightly sticky, slightly plastic, weak rupture resistance, brittle in red part; common fine and medium roots throughout; common medium and coarse prominent brownish yellow (10YR 6/6) and few fine very pale brown (10YR 7/4) masses of oxidized iron; few brown clay horizontal layers 0.25 to 1 inch wide and 2 to 6 inches long; common distinct clay films on faces of peds; few fine mica flakes; moderately acid; clear wavy boundary.
- Btx2—37 to 80 inches; red (2.5YR 4/6) clay loam; moderate very coarse angular blocky structure parting to weak thick platy; firm, slightly sticky, moderately plastic, moderate rupture resistance, brittle in red parts; common fine and medium and few coarse roots throughout; common medium and coarse distinct strong brown (7.5YR 5/6) masses of oxidized iron and many fine and medium prominent light brownish gray (10YR 6/2) iron depletions; common brown and gray (the brown surrounds the gray) clay horizontal layers 0.25 to about 1 inch wide and 2 to about 8 inches long; common distinct clay films on faces of peds; common fine mica flakes; strongly acid.

Range in Characteristics

Thickness of the solum: More than 48 inches

Depth to bedrock: More than 60 inches

Depth to the dense, partially brittle layer: 15 to 40 inches

Coarse fragments (content, size, kind): 0 to about 7 percent; these consist of angular fragments of quartz that often occur as quartz stringers

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid in the Bt, Btx, and C horizons

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 or 4; hue ranges to 5YR in eroded areas

Texture—sandy loam or loamy sand; sandy clay loam or clay loam in eroded areas

Bt horizon (upper part):

Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 6 to 8

Texture—horizon is clay loam or clay and is nonbrittle

Bt horizon (lower part):

Color—hue of 7.5YR or 10YR, value of 3, and chroma of 6 to 8

Texture—horizon is clay loam or clay and is nonbrittle

Redoximorphic features—masses of oxidized iron in shades of red or yellow

Btx horizon:

Color—dense and brittle red layers have hue of 10R to 5YR, value of 3 to 5, and chroma of 6 to 8; brown layers have hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 3 to 8

Texture—sandy clay loam or clay loam; ranging to clay in some pedons

Redoximorphic features—iron depletions in shades of gray and masses of oxidized iron in shades of red, yellow, or brown

BC horizon (if it occurs):

Color—multicolored in shades of red, brown, gray, and yellow

Texture—clay loam, sandy clay loam, or loam

C horizon (if it occurs):

Color—commonly multicolored in shades of yellow, red, and brown

Texture—sandy loam, loam, sandy clay loam, or clay loam; consisting of weathered saprolite that crushes easily

Cecil Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum from acid crystalline rocks

Landform: Uplands

Slope range: 2 to 25 percent

Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Associated Soils

- Appling soils, which have a dominant hue of 5YR or yellower
- Cataula soils, which have a layer at a depth of 15 to 40 inches that restricts plant roots
- Winnsboro and Mecklenburg soils, which have mixed mineralogy and have base saturation greater than 35 percent
- Hiwassee soils, which are dark red with color value of 3 or less
- Pacolet soils, which have thinner Bt horizons than the Cecil soils
- Rion soils, which contain less clay than the Cecil soils

Typical Pedon

Cecil sandy loam, 7 to 15 percent slopes; Sumter National Forest, Abbeville County, South Carolina; about 4.5 miles east of Abbeville, from the junction of U.S. Forest Service Roads 505-E and 505, northeast on Road 505 for 0.25 mile, 320 degrees for 110 feet to the site; USGS topographic quadrangle, Abbeville East, SC (1948); lat. 34 degrees 09 minutes 39 seconds N. and long. 81 degrees 17 minutes 45 seconds W.

A—0 to 6 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; few medium and coarse and many fine roots throughout; strongly acid; abrupt smooth boundary.

Bt1—6 to 15 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine to coarse roots throughout; few fine tubular pores; thick distinct clay films on faces of most peds; few fine mica flakes; moderately acid; gradual smooth boundary.

Bt2—15 to 38 inches; red (2.5YR 4/8) clay; few fine and medium prominent strong brown (7.5YR 5/8) lithochromic mottles; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine and few medium roots throughout; few fine tubular pores; thick prominent clay films on ped faces; common fine mica flakes; moderately acid; gradual wavy boundary.

Bt3—38 to 42 inches; red (2.5YR 4/8) clay loam; common medium distinct yellowish red (5YR 5/8) and few medium prominent strong brown (7.5YR 5/6) lithochromic mottles; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots throughout; few fine tubular pores; thick prominent clay films on faces of peds; few fine mica flakes; strongly acid; gradual smooth boundary.

BC—42 to 80 inches; red (2.5YR 4/8) sandy clay loam; common medium and coarse prominent strong brown (7.5YR 5/8) and few fine and medium very pale brown (10YR 7/3) lithochromic mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots throughout; few fine tubular pores; thin distinct clay films on some faces of peds; few fine mica flakes; strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

Depth to bedrock: More than 78 inches; ranging to 120 inches or more

Reaction: Very strongly acid to moderately acid in the A horizon, except where lime has been applied, and strongly acid or very strongly acid in the B and C horizons; limed soils are typically moderately acid or slightly acid in the upper part

Content of coarse fragments: Gravel and cobbles range from 0 to 35 percent in the A horizon and from 0 to 10 percent in the Bt horizon

Content of mica flakes: Few or common flakes of mica in the Bt horizon and few to many flakes of mica in the BC and C horizons of most pedons

A or Ap horizon:

Color—hue of 2.5YR to 10YR, value of 3 to 5, and chroma of 2 to 8; where value is 3, horizon is less than 6 inches thick

Texture—sandy loam or loam in the fine-earth fraction; sandy clay loam or clay loam in eroded areas

E horizon (if it occurs):

Color—hue of 10YR, value of 4 or 5, and chroma of 3 to 5

Texture—sandy loam or loam in the fine-earth fraction

BA or BE horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 6

Texture—sandy clay loam, loam, or clay loam

Bt horizon:

Color—hue of 10R or 2.5YR, value of 4 or 5, and chroma of 6 to 8; hue ranges to 5YR if evident patterns of lithochromic mottling are absent

Texture—clay loam or clay; horizon contains 35 to 60 percent clay and less than 30 percent silt and extends to depths of 30 to 59 inches

Lithochromic mottles—few or common in most pedons in shades of brown and yellow

BC horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture—sandy clay loam, clay loam, or loam

Lithochromic mottles—few or common in some pedons in shades of yellow and brown

C horizon (if it occurs):

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture—loamy saprolite weathered from felsic crystalline rock

Chenneby Series

Depth class: Very deep

Drainage class: Somewhat poorly drained

Saturated hydraulic conductivity: Moderately high

Parent material: Alluvium washed from soils that formed in residuum from schist, gneiss, granite, phyllite, and other metamorphic and igneous rocks

Landform: Flood plains

Slope range: 0 to 2 percent

Taxonomic class: Fine-silty, mixed, active, thermic Fluvaquentic Dystrudepts

Associated Soils

- Buncombe soils, which have a sandy particle-size control section
- Cartecay soils, which have less than 18 percent clay in the 10- to 40-inch particle-size control section and have iron depletions with chroma of 2 or less within a depth of 20 inches

- Shellbluff soils, which are well drained and do not have iron depletions with chroma of 2 or less in the upper 24 inches
- Toccoa soils, which have less than 18 percent clay in the 10- to 40-inch particle-size control section

Typical Pedon

Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded; Sumter National Forest, Newberry County, South Carolina; about 6.75 miles south-southeast of Whitmire, from the junction of State Highway 121 and Indian Creek, 0.275 mile south on State Highway 121, about 90 degrees for 200 feet, 40 degrees for 625 feet to the site; USGS topographic quadrangle, Whitmire East, SC (1969); lat. 34 degrees 24 minutes 30 seconds N. and long. 81 degrees 34 minutes 35 seconds W.

- A—0 to 4 inches; dark brown (10YR 4/3) silt loam; weak fine granular structure; friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; few fine mica flakes; strongly acid; abrupt smooth boundary.
- Bw1—4 to 9 inches; brown (10YR 4/3) silt loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and few medium and coarse roots throughout; common medium faint brown (10YR 5/3) masses of oxidized iron; few distinct patchy organic coats; few mica flakes; moderately acid; clear smooth boundary.
- Bw2—9 to 20 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and few medium and coarse roots throughout; common medium prominent pale brown (10YR 6/3) and few medium faint yellowish brown (10YR 5/6) masses of oxidized iron; few distinct patchy organic coats; few fine mica flakes; moderately acid; gradual wavy boundary.
- Bw3—20 to 41 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium roots throughout; common coarse distinct gray (10YR 5/1) iron depletions and few medium faint brown (10YR 5/3) masses of oxidized iron; common distinct patchy organic coats; few fine mica flakes; moderately acid; clear smooth boundary.
- Cg—41 to 80 inches; gray (10YR 5/1) clay loam; massive; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few distinct patchy organic coats; few fine mica flakes; moderately acid.

Range in Characteristics

Thickness of the solum: 40 to 70 inches

Depth to bedrock: More than 72 inches

Content of mica flakes: None to common in the solum

Reaction: Moderately acid or strongly acid in the A horizon, except where lime has been applied, and moderately acid or strongly acid in the B and C horizons

A horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 2 to 4; where value is 3 and chroma is 2, the horizon is 6 inches or less thick

Texture—silt loam, loam, or silty clay loam

Bw horizon:

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 6

Texture—silt loam or silty clay loam; loam or clay loam in some pedons

Redoximorphic features—iron depletions in shades of gray are within 24 inches of the surface

Cg horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 1 or 2

Texture—sandy loam to silty clay loam

Redoximorphic features—masses of oxidized iron in shades of brown and olive

Hiwassee Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum from intermediate and mafic crystalline rocks

Landform: Uplands

Slope range: 2 to 15 percent

Taxonomic class: Fine, kaolinitic, thermic Rhodic Kanhapludults

Associated Soils

- Cataula, Cecil, Mecklenburg, and Winnsboro soils, which do not have dark red colors

Typical Pedon

Hiwassee sandy clay loam, 2 to 7 percent slopes, moderately eroded; Sumter National Forest, Abbeville County, South Carolina; about 6.5 miles southeast of Abbeville, from the junction of U.S. Forest Service Roads 509 and 509-C travel north on U.S. Forest Service Road 509-C for 0.37 mile, 290 degrees for 84 feet to the site; USGS topographic quadrangle, Verdery, SC (1948); lat. 34 degrees 06 minutes 25 seconds N. and long. 82 degrees 22 minutes 54 seconds W.

A—0 to 4 inches; dark reddish brown (5YR 3/3) sandy clay loam; weak fine granular structure parting to weak fine subangular blocky; friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; moderately acid; abrupt smooth boundary.

Bt1—4 to 8 inches; dark reddish brown (2.5YR 3/4) clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; very few distinct clay films on faces of peds; moderately acid; clear smooth boundary.

Bt2—8 to 41 inches; dark red (10R 3/6) clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and medium roots throughout; many distinct clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt3—41 to 55 inches; dark red (2.5YR 3/6) clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and medium roots throughout; common distinct clay films on faces of peds; strongly acid; clear wavy boundary.

BC—55 to 80 inches; reddish yellow (5YR 6/8) and dark red (2.5YR 3/6) clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots between peds; 1 percent quartzite gravel; very few faint clay films on faces of peds; strongly acid.

Range in Characteristics

Thickness of the solum: 50 to more than 60 inches

Content of mica flakes: Few or common in most pedons; ranging to many in the C horizon of some pedons

Reaction: Slightly acid to very strongly acid, except where lime has been applied

Content of dark concretions: None to common

Lithologic discontinuities: Stone lines are beneath the solum in some pedons

A horizon:

Color—hue of 10R to 5YR, value of 3, and chroma of 2 to 4

Texture—loam, sandy loam, clay loam, or sandy clay loam in the fine-earth fraction

Bt horizon:

Color—hue of 10R or 2.5YR, value of 3, and chroma of 4 to 6

Texture—clay or clay loam in the fine-earth fraction

Lithochromic mottles—in the lower part of the Bt horizon of some pedons in shades of yellow and brown

BC horizon:

Color—hue of 10R or 2.5YR, value of 3, and chroma of 4 to 6

Texture—clay loam or sandy clay loam in the fine-earth fraction

Lithochromic mottles—in shades of yellow and brown

C horizon (if it occurs):

Color—hue of 2.5YR or 5YR, value of 5, and chroma of 5 to 8

Texture—weathered saprolite that is clay loam, loam, sandy clay loam, or sandy loam in the fine-earth fraction

Mecklenburg Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum from intermediate and mafic crystalline rocks

Landform: Uplands

Slope range: 2 to 25 percent

Taxonomic class: Fine, mixed, active, thermic Ultic Hapludalfs

Associated Soils

- Cecil and Pacolet soils, which have base saturation less than 35 percent
- Hiwassee soils, which have dark red Bt horizons
- Wilkes soils, which have yellower Bt horizons and have bedrock at a depth of less than 40 inches
- Winnsboro soils, which have yellower Bt horizons

Typical Pedon

Mecklenburg sandy clay loam, 7 to 15 percent slopes, moderately eroded; Sumter National Forest, Union County, South Carolina; about 57.0 miles southwest of Union, from the junction of U.S. Forest Service Roads 323 and 324 travel north on Road 324 to the end of the road, 129 degrees southeast for 650 feet to the site; USGS topographic quadrangle, Union West, SC (1969); lat. 34 degrees 40 minutes 46 seconds N. and long. 81 degrees 40 minutes 29 seconds W.

A—0 to 4 inches; brown (10YR 4/3) sandy clay loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; 2 percent quartzite pebbles; moderately acid; abrupt smooth boundary.

Bt1—4 to 20 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; few fine and medium rounded, dark concretions; slightly acid; gradual wavy boundary.

- Bt2—20 to 35 inches; red (2.5YR 4/8) clay; few medium prominent strong brown (7.5YR 5/8) lithochromic mottles; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; common distinct clay films on faces of peds; few fine and medium rounded, dark concretions; slightly acid; gradual wavy boundary.
- BC—35 to 50 inches; red (2.5YR 5/8) clay loam; common medium prominent reddish yellow (7.5YR 7/8) lithochromic mottles; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine and medium roots throughout; few faint clay films on faces of peds; few fine and medium rounded, dark concretions; slightly acid; gradual wavy boundary.
- C—50 to 80 inches; red (2.5YR 5/8) loam; common fine and medium prominent reddish yellow (7.5YR 7/8) and few medium very dark brown (10YR 2/2) lithochromic mottles; friable, slightly sticky, slightly plastic; few fine and medium rounded, dark concretions; slightly acid.

Range in Characteristics

Thickness of the solum: 25 to 58 inches

Depth to bedrock: More than 60 inches

Reaction: Strongly acid to slightly acid in the A horizon and moderately acid to neutral in the B and C horizons

Content of coarse fragments: Gravel and cobbles range from 0 to 20 percent in the A horizon and from 0 to 10 percent in the B horizon

Content of manganese concretions: Few to many in the A and B horizons

Content of mica flakes: None or few

A or Ap horizon:

Color—hue of 2.5YR to 7.5YR, value of 3 to 6, and chroma of 2 to 6; where value is less than 4, the horizon is less than 6 inches thick

Texture—sandy loam or loam; sandy clay loam or clay loam in eroded areas

BE or BA horizon (if it occurs):

Color—hue of 2.5YR or 5YR, value of 3 to 6, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam

Bt horizon (upper part):

Color—hue of 2.5YR or 5YR, value of 3 to 6, and chroma of 4 to 8

Texture—clay with clay content ranging from 40 to 60 percent

Bt horizon (lower part):

Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 4 to 8

Texture—clay with clay content ranging from 40 to 60 percent

Lithochromic mottles—in shades of brown, yellow, and red in most pedons

BC horizon:

Color—hue of 2.5YR to 7.5YR, value of 4 to 7, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam

C horizon:

Color—multicolored

Texture—saprolite weathered from mafic crystalline rock; variable in texture but generally loamy

Pacolet Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum from acid crystalline rocks

Landform: Uplands

Slope range: 7 to 50 percent

Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Associated Soils

- Appling, Cecil, and Hiwassee soils, which have clayey Bt horizons more than 24 inches thick
- Cataula soils, which have a layer in the Btx horizon that is dense and partially brittle
- Mecklenburg and Winnsboro soils, which have mixed mineralogy and have a base saturation that is more than 35 percent
- Rion soils, which contain less clay than the Pacolet soils and have mixed mineralogy

Typical Pedon

Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded; Sumter National Forest, Union County, South Carolina; about 11.5 miles southwest of Union, from the junction of County Road 196 and U.S. Forest Service Road 345A travel south on U.S. Forest Service Road 345A for 2.0 miles, about 90 degrees east for 1,150 feet to the site; USGS topographic quadrangle, Philson Crossroads, SC (1969); lat. 34 degrees 35 minutes 10 seconds N. and long. 81 degrees 48 minutes 12 seconds W.

A—0 to 2 inches; brown (10YR 4/3) sandy clay loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; strongly acid; abrupt smooth boundary.

Bt1—2 to 15 inches; red (2.5YR 4/8) clay; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine and medium roots throughout; common distinct clay films on faces of peds; few fine mica flakes; strongly acid; gradual wavy boundary.

Bt2—15 to 26 inches; red (2.5YR 4/8) clay loam; few medium prominent strong brown (7.5YR 5/6) lithochromic mottles; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine roots throughout; common distinct clay films on faces of peds; few fine mica flakes; strongly acid; gradual wavy boundary.

BC—26 to 43 inches; red (2.5YR 5/8) clay loam; common medium prominent strong brown (7.5YR 5/6) lithochromic mottles; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine roots between peds; few faint clay films on faces of peds; common fine mica flakes; strongly acid; gradual wavy boundary.

C—43 to 80 inches; red (2.5YR 5/8) loam; common medium prominent strong brown (7.5YR 5/6) lithochromic mottles; friable, slightly sticky, slightly plastic; common fine mica flakes; strongly acid.

Range in Characteristics

Thickness of the Bt horizon: 12 to 24 inches; extending to a depth of 18 to 30 inches

Depth to bedrock: More than 60 inches

Reaction: Very strongly acid to slightly acid in the A horizon and very strongly acid to moderately acid throughout the rest of the profile

Content of coarse fragments: 0 to 35 percent in the A and E horizons and 0 to 15 percent in the Bt horizon

Content of mica flakes: Few or common flakes of mica in one or more horizons in most pedons

A or Ap horizon:

Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 2 to 4; in eroded areas, hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8

Texture—dominantly sandy loam; ranging to loamy sand or loam in the fine-earth fraction; clay loam or sandy clay loam in eroded areas

E horizon (if it occurs):

Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 8

Texture—dominantly sandy loam; ranging to loamy sand and loam in the fine-earth fraction

BE or BA horizon (if it occurs):

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 3 to 8

Texture—clay loam, sandy clay loam, or loam

Lithochromic mottles—in shades of yellow and brown in most pedons

Bt horizon:

Color—hue of 10R or 2.5YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay, sandy clay, or clay loam

Lithochromic mottles—in shades of yellow and brown in most pedons

BC horizon:

Color—hue of 10R to 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay loam, sandy clay loam, loam, or sandy loam

Lithochromic mottles—in shades of yellow and brown

C horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—loamy saprolite weathered from felsic crystalline rock

Lithochromic mottles—in shades of yellow and brown

Rion Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum from acid crystalline rocks

Landform: Uplands

Slope range: 7 to 50 percent

Taxonomic class: Fine-loamy, mixed, semiactive, thermic Typic Hapludults

Associated Soils

- Appling, Cecil, and Pacolet soils, which have clayey Bt horizons

Typical Pedon

Rion sandy loam, 15 to 25 percent slopes, moderately eroded; Sumter National Forest, Union County, South Carolina; about 8.5 miles southwest of Union, from the junction of U.S. Forest Service Roads 323 and 324 in Union County travel northeast of U.S. Forest Service Road 324 for 0.9 mile, 270 degrees west for 550 feet to the site; USGS topographic quadrangle, Sedalia, SC (1969); lat. 34 degrees 36 minutes 40 seconds N. and long. 81 degrees 43 minutes 30 seconds W.

A—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; moderately acid; abrupt smooth boundary.

E—2 to 4 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium roots throughout; strongly acid; abrupt wavy boundary.

Bt1—4 to 20 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine

- and medium roots throughout; few faint clay films on faces of peds; few fine mica flakes; strongly acid; gradual wavy boundary.
- Bt2—20 to 25 inches; strong brown (7.5YR 5/6) sandy clay loam; few fine distinct reddish yellow (7.5YR 6/8) lithochromic mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots throughout; few faint clay films on faces of peds; common fine mica flakes; strongly acid; gradual wavy boundary.
- BC—25 to 35 inches; yellowish brown (10YR 5/6) sandy clay loam; common fine distinct light yellowish brown (10YR 6/4) and few faint yellowish brown (10YR 5/4) lithochromic mottles; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium roots throughout; few faint clay films on faces of peds; common fine mica flakes; strongly acid; gradual wavy boundary.
- C1—35 to 48 inches; light yellowish brown (10YR 6/4) sandy loam; common medium prominent very dark grayish brown (10YR 3/2) lithochromic mottles; massive; friable, nonsticky, nonplastic; few fine and medium roots throughout; common fine mica flakes; strongly acid; gradual wavy boundary.
- C2—48 to 80 inches; dark brown (10YR 3/3) sandy loam; common medium distinct very pale brown (10YR 7/3) and yellowish brown (10YR 5/4) lithochromic mottles; massive; friable, nonsticky, nonplastic; common fine mica flakes; strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to bedrock: More than 60 inches

Reaction: Very strongly acid to slightly acid throughout the profile

Content of mica flakes: None to common

Content of coarse fragments: Dominantly 0 to 12 percent, but ranging to 35 percent throughout the profile; some pedons have stones or boulders on the surface

A horizon:

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 2 to 6; value ranges to 3 in pedons where horizon is less than 6 inches thick

Texture—loamy sand, coarse sandy loam, or sandy loam in the fine-earth fraction

E horizon (if it occurs):

Color—hue of 10YR, value of 4 to 6, and chroma of 3 or 4

Texture—loamy sand or sandy loam in the fine-earth fraction

Bt horizon:

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—dominantly sandy clay loam; including sandy loam or clay loam in the fine-earth fraction

Lithochromic mottles—in shades of brown, red, and gray

BC horizon:

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 4 to 8

Texture—loam, clay loam, sandy clay loam, or sandy loam in the fine-earth fraction

Lithochromic mottles—in shades of red, brown, yellow, gray, and white; gray and white mottles are relic weathered rock material and are not a result of wetness

C horizon:

Color—hue of 2.5YR to 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—loamy sand, coarse sandy loam, sandy loam, or sandy clay loam in the fine-earth fraction

Lithochromic mottles—in shades of red, brown, yellow, gray, and white

Santuc Series

Depth class: Very deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum from mixed acid crystalline rocks

Landform: Uplands

Slope range: 2 to 15 percent

Taxonomic class: Fine-loamy, mixed, semiactive, thermic Aquic Hapludults

Associated Soils

- Appling, Cecil, and Pacolet soils, which are well drained and have kaolinitic mineralogy
- Rion soils, which have less than 35 percent clay and have mixed mineralogy

Typical Pedon

Santuc loamy coarse sand, 2 to 7 percent slopes; Sumter National Forest, Union County, South Carolina; about 9.0 miles north of Whitmire, from the junction of County Road 24 and County Road 132 travel southwest on County Road 132 for 1.24 miles, 90 degrees east for 50 feet to the site; USGS topographic quadrangle, Union East, SC (1971); lat. 34 degrees 38 minutes 04 seconds N. and long. 81 degrees 34 minutes 46 seconds W.

- A—0 to 3 inches; dark grayish brown (10YR 4/2) loamy coarse sand; weak fine granular structure; very friable; many fine and medium and few coarse roots; extremely acid; clear smooth boundary.
- E—3 to 9 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; very friable; common fine and few medium roots; very strongly acid; clear smooth boundary.
- Bt1—9 to 14 inches; yellowish brown (10YR 5/4) sandy loam; weak medium angular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; extremely acid; gradual smooth boundary.
- Bt2—14 to 26 inches; yellowish brown (10YR 5/4) sandy clay loam; moderate coarse subangular and angular blocky structure; firm; few fine and medium roots; common medium distinct reddish yellow (7.5YR 6/8) and few medium prominent yellowish red (5YR 5/8) masses of oxidized iron; many distinct clay films on faces of peds; 2 percent quartz gravel; extremely acid; clear smooth boundary.
- Bt3—26 to 41 inches; brownish yellow (10YR 6/6) clay loam; weak coarse prismatic structure parting to strong coarse angular blocky; very firm; few fine and medium roots; common coarse distinct yellow (10YR 7/8) masses of oxidized iron and light brownish gray (10YR 6/2) iron depletions; many prominent light gray (10YR 6/2) clay films on faces of peds; extremely acid; clear smooth boundary.
- BC—41 to 51 inches; yellow (10YR 7/8) loam; weak medium subangular blocky structure; firm; few fine roots; many coarse distinct very pale brown (10YR 8/3) and common medium distinct light grayish brown (10YR 6/2) and light gray (10YR 7/1) iron depletions; few distinct clay films on faces of peds; extremely acid; clear wavy boundary.
- C—51 to 80 inches; very pale brown (10YR 8/4) sandy loam; massive; friable; common medium distinct light brownish gray (10YR 6/2) iron depletions; many medium distinct yellow (10YR 7/8) and few coarse prominent reddish yellow (7.5YR 6/8) masses of oxidized iron; extremely acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches or more

Depth to bedrock: More than 60 inches

Soil Survey of Newberry County, South Carolina

Reaction: Extremely acid to strongly acid

Content of coarse fragments: 0 to 10 percent in the A and E horizons and 0 to 5 percent in the B and C horizons

Content of mica flakes: None or few in the Bt and C horizons

A horizon:

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—loamy coarse sand, loamy sand, coarse sandy loam, or sandy loam

E horizon (if it occurs):

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—loamy coarse sand, loamy sand, coarse sandy loam, or sandy loam

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy loam, sandy clay loam, or clay loam; ranging to clay in the lower part

Redoximorphic features—masses of oxidized iron in shades of red, yellow, and brown; iron depletions in shades of gray

BC horizon:

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 4 to 8

Texture—loam or sandy clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown

C horizon:

Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 3 to 6

Texture—sandy loam, loam, or sandy clay loam

Shellbluff Series

Depth class: Very deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Alluvium

Landform: Flood plains

Slope range: 0 to 2 percent

Taxonomic class: Fine-silty, mixed, active, thermic Oxyaquic Dystrudepts

Associated Soils

- Buncombe soils, which are sand or loamy sand to a depth of 40 inches
- Cartecay soils, which have less than 18 percent clay in the 10- to 40-inch particle-size control section and have iron depletions with chroma of 2 or less within a depth of 20 inches
- Chenneby soils, which have iron depletions with chroma of 2 or less within a depth of 24 inches
- Toccoa soils, which have less than 18 percent clay in the 10- to 40-inch particle-size control section

Typical Pedon

Shellbluff silty clay loam, 0 to 2 percent slopes, occasionally flooded; Sumter National Forest, Laurens County, South Carolina; about 7.5 miles northwest of Whitmire, from the junction of U.S. Forest Service Roads 333 and 333A travel north on U.S. Forest Service Road 333A to the end of the road, 308 degrees north for 720 feet to the site;

USGS topographic quadrangle, Philson Crossroads, SC (1969); lat. 34 degrees 33 minutes 53 seconds N. and long. 81 degrees 45 minutes 19 seconds W:

- A—0 to 4 inches; brown (10YR 4/3) silty clay loam; weak medium granular structure; friable; many fine and few medium roots; very strongly acid; abrupt smooth boundary.
- Bw1—4 to 17 inches; dark brown (7.5YR 4/4) silty clay loam; weak coarse subangular blocky structure; friable; common fine and few medium and coarse roots; few coarse faint yellowish brown (10YR 5/4) masses of oxidized iron; few fine pores; very strongly acid; clear smooth boundary.
- Bw2—17 to 32 inches; brown (7.5YR 4/4) silty clay loam; some color stratification; weak coarse subangular blocky structure; friable; common fine and few medium roots; common medium faint brown (10YR 5/3) and few fine distinct dark yellowish brown (10YR 3/4) masses of oxidized iron; few fine flakes of mica; organic stains on some faces of peds; strongly acid; clear smooth boundary.
- Bw3—32 to 44 inches; brown (7.5YR 4/4) silty clay loam; some color stratification; weak coarse subangular blocky structure; friable; few fine roots; few medium prominent grayish brown 10YR 5/2 iron depletions; few medium distinct dark yellowish brown (10YR 3/4) masses of oxidized iron; few fine flakes of mica; organic stains on some faces of peds; strongly acid; clear smooth boundary.
- C—44 to 60 inches; brown (7.5YR 4/4) silty clay loam; massive; friable; few fine roots; common medium prominent grayish brown (10YR 5/2) iron depletions; common medium faint yellowish brown (10YR 5/4) masses of oxidized iron; few fine flakes of mica; some organic stains; strongly acid; abrupt smooth boundary.
- Cg—60 to 80 inches; gray (10YR 5/1) silty clay loam; massive; friable; few common medium prominent brown (10YR 4/3) and few fine prominent dark brown (7.5YR 4/4) masses of oxidized iron; fine flakes of mica; strongly acid.

Range in Characteristics

Thickness of the solum: 20 to more than 40 inches

Depth to bedrock: More than 60 inches

Reaction: Very strongly acid to slightly acid throughout the profile

Content of mica flakes: None to common in the upper part of the profile and few or common in the lower part

A horizon:

Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4; where value is 3, the horizon is less than 6 inches thick

Texture—silty clay loam, silt loam, or loam

Bw horizon:

Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 8

Texture—silty clay loam, silt loam, or loam

Redoximorphic features—masses of oxidized iron in shades of red, brown, and yellow are in most pedons; iron depletions in shades of gray range from none to common at depths of 24 inches or more

Bw horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 to 6

Texture—silty clay loam

Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray

C horizon:

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 to 8

Texture—silty clay loam

Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, brown, and yellow

Cg horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 1 or 2

Texture—silty clay loam

Redoximorphic features—masses of oxidized iron in shades of yellow and brown

Toccoa Series

Depth class: Very deep

Drainage class: Moderately well drained

Saturated hydraulic conductivity: High

Parent material: Alluvium

Landform: Flood plains

Slope range: 0 to 2 percent

Taxonomic class: Coarse-loamy, mixed, active, nonacid, thermic Typic Udifluvents

Associated Soils

- Cartecay soils, which are wetter than the Toccoa soils and have gray iron depletions within a depth of 20 inches
- Chenneby and Shellbluff soils, which contain more clay in the 10- to 40-inch particle-size control section than the Toccoa soils

Typical Pedon

Toccoa loam, occasionally flooded; Sumter National Forest, Union County, South Carolina; about 2.5 miles north of Whitmire, from the junction of U.S. Highway 176 and Padgett's Creek travel southeast 225 feet along the south bank of Padgett's Creek, 8 degrees south for 100 feet to the site; USGS topographic quadrangle, Whitmire North, SC (1970); lat. 34 degrees 32 minutes 52 seconds N. and long. 81 degrees 36 minutes 13 seconds W.

- A—0 to 2 inches; dark grayish brown (10YR 4/3) loam; weak fine granular structure; very friable, slightly sticky, slightly plastic; many fine and common medium roots; few fine flakes of mica; moderately acid; abrupt smooth boundary.
- C1—2 to 17 inches; yellowish red (5YR 5/6) sandy loam; massive; very friable, slightly sticky, slightly plastic; common fine and medium roots; few fine flakes of mica; strongly acid; abrupt smooth boundary.
- C2—17 to 24 inches; strong brown (7.5YR 5/6) sandy loam; massive; very friable, nonsticky, nonplastic; few fine and medium roots; common fine flakes of mica; thin strata of loamy sand; strongly acid; abrupt smooth boundary.
- C3—24 to 42 inches; brown (10YR 5/3) sandy loam; massive; very friable, nonsticky, nonplastic; few fine and medium roots; common medium distinct strong brown (7.5YR 5/6) masses of oxidized iron; common fine flakes of mica; bedding planes and thin strata of loamy sand; strongly acid; abrupt smooth boundary.
- C4—42 to 80 inches; brown (10YR 5/3) and grayish brown (10YR 6/2) loam; massive; very friable, slightly sticky, slightly plastic; few fine roots; common medium prominent dark brown (7.5YR 4/4) masses of oxidized iron; common fine flakes of mica; thin strata of sandy loam or loam; moderately acid.

Range in Characteristics

Reaction: Strongly acid to slightly acid; all pedons have a subhorizon in the 10- to 40-inch particle-size control section that is moderately acid or slightly acid

Bedding planes and thin strata: Sandy or loamy textures occur throughout the C horizons

Content of mica flakes: Few to many in all horizons

Clay content: Average of 8 to 18 percent in the 10- to 40-inch particle-size control section

A horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4; where value is less than 4, the horizon is less than 6 inches thick

Texture—sandy loam, loam, or silt loam

C horizon:

Color—hue of 5YR to 10YR, value of 3 to 6, and chroma of 3 to 8

Texture—dominantly sandy loam or fine sandy loam; thin horizons, commonly less than 10 inches thick, of sand, loamy sand, loam, or sandy clay loam occur in some pedons

Redoximorphic features—iron depletions in shades of gray are below a depth of 20 inches

Wilkes Series

Depth class: Shallow

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately high

Parent material: Residuum from intermediate and mafic crystalline rocks

Landform: Uplands

Slope range: 7 to 50 percent

Taxonomic class: Loamy, mixed, active, thermic, shallow Typic Hapludalfs

Associated Soils

- Mecklenburg, Pacolet, Rion, and Winnsboro soils, which have a thicker solum than the Wilkes soils

Typical Pedon

Wilkes sandy loam, 25 to 50 percent slopes, eroded; Sumter National Forest, Union County, South Carolina; about 2.0 miles east of Whitmire, from the junction of County Road 45 and U.S. Forest Service Road 392-C travel southwest on U.S. Forest Service Road 392-C for 1.15 miles, 360 degrees north for 800 feet to the site; USGS topographic quadrangle, Whitmire North, SC (1970); lat. 34 degrees 31 minutes 08 seconds N. and long. 81 degrees 35 minutes 00 seconds W:

A—0 to 2 inches; very dark grayish brown (10YR 3/2) sandy loam; weak fine granular structure; very friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; moderately acid; abrupt smooth boundary.

E—2 to 4 inches; brown (10YR 5/3) coarse sandy loam; weak fine granular structure; very friable, slightly sticky, slightly plastic; many fine and medium and few coarse roots throughout; moderately acid; abrupt smooth boundary.

Bt—4 to 15 inches; yellowish brown (10YR 5/4) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and common medium roots throughout; few faint clay films on faces of peds; few fine mica flakes; moderately acid; clear wavy boundary.

BC—15 to 18 inches; yellowish brown (10YR 5/6) coarse sandy loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots throughout; few fine mica flakes; slightly acid; clear wavy boundary.

Cr—18 to 45 inches; yellowish brown (10YR 5/4) saprolite that crushes to coarse

sand; few fine and medium faint light yellowish brown (10YR 6/4) lithochromic mottles; platy rock structure; few fine roots in cracks; neutral; clear wavy boundary. R—45 inches; hard bedrock.

Range in Characteristics

Thickness of the solum: 10 to 20 inches

Thickness of soft bedrock: 10 to 20 inches

Thickness of hard bedrock: 40 to more than 60 inches

Content of coarse fragments: Gravel, cobbles, and stones range from 0 to 50 percent in the A horizon and from 0 to 35 percent in the B horizon

Content of dark concretions: None to common

Reaction: Strongly acid to slightly acid in the upper horizons and moderately acid to neutral in the lower horizons

Clay content: Average of 18 to 35 percent for the combined A, Bt, and C horizons

A or Ap horizon:

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—sandy loam or loam in the fine-earth fraction; sandy clay loam in eroded areas

E horizon (if it occurs):

Color—hue of 10YR, value of 5, and chroma of 3

Texture—sandy loam or loam in the fine-earth fraction

Bt horizon:

Color—hue of 5YR to 2.5Y, value of 4 or 5, and chroma of 4 to 8

Lithochromic mottles, bodies, or streaks—saprolite or primary minerals are few or common in most pedons in shades of black, green, gray, and white

Texture—sandy clay loam, clay loam, or clay in the fine-earth fraction

BC horizon:

Color—hue of 7.5YR to 2.5Y, value of 5, and chroma of 4 to 6

Lithochromic mottles, bodies, or streaks—saprolite or primary minerals are few or common in most pedons in shades of black, green, gray, and white

Texture—sandy loam or sandy clay loam

C horizon (if it occurs):

Color—shades of black, green, brown, and gray

Texture—sandy loam saprolite of intermediate or mafic crystalline rock

Cr horizon:

Texture—soft intermediate or mafic crystalline rock that can be dug with difficulty with a spade

R horizon:

Texture—hard intermediate or mafic crystalline bedrock

Winnsboro Series

Depth class: Deep

Drainage class: Well drained

Saturated hydraulic conductivity: Moderately low

Parent material: Residuum from gabbro and hornblende schist

Landform: Uplands

Slope range: 2 to 25 percent

Taxonomic class: Fine, mixed, active, thermic Typic Hapludalfs

Associated Soils

- Cecil, Mecklenburg, and Pacolet soils, which are redder than the Winnsboro soils
- Rion soils, which have base saturation less than 35 percent
- Wilkes soils, which have a solum less than 20 inches thick

Typical Pedon

Winnsboro sandy loam, 7 to 15 percent slopes, eroded; Sumter National Forest, Union County, South Carolina; about 11.0 miles northwest of Whitmire, from the junction of State Highway 49 and County Road 18 travel southeast on County Road 18 for 1.2 miles, south 0.5 mile on an unnumbered county road, south 0.25 mile on a logging road, southeast 0.45 mile on the logging road, 106 degrees east for 82 feet to the site; USGS topographic quadrangle, Philson Crossroads, SC (1969); lat. 34 degrees 36 minutes 56 seconds N. and long. 81 degrees 46 minutes 21 seconds W.

- A—0 to 5 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable; many fine and medium roots; strongly acid; abrupt smooth boundary.
- Bt1—5 to 17 inches; light olive brown (2.5Y 5/4) clay; moderate coarse angular blocky structure; very firm, very sticky, very plastic; common fine and few medium roots; common distinct clay films on faces of peds; few dark concretions; moderately acid; gradual smooth boundary.
- Bt2—17 to 25 inches; yellowish brown (10YR 5/8) clay; moderate coarse angular blocky structure; very firm, very sticky, very plastic; few fine roots; common distinct clay films on faces of peds; few dark concretions; few fine flakes of mica; slightly acid; gradual smooth boundary.
- BC—25 to 32 inches; yellowish brown (10YR 5/6) sandy clay loam; common fine prominent very dark grayish brown (10YR 3/2) and few fine distinct brownish yellow (10YR 6/8) lithochromic mottles; weak medium subangular blocky structure; friable, sticky, plastic; few fine roots; few dark concretions; common fine flakes of mica; slightly acid; clear smooth boundary.
- C—32 to 52 inches; yellowish brown (10YR 5/6) sandy loam; many fine prominent very dark grayish brown (10YR 3/2) and few fine distinct yellow (10YR 7/6) lithochromic mottles; massive; friable; few fine roots; common fine flakes of mica; slightly acid; gradual wavy boundary.
- Cr—52 to 80 inches; yellowish brown (10YR 5/4) saprolite that crushes to coarse sandy loam; many fine distinct yellow (10YR 7/6) and common fine prominent very dark grayish brown (10YR 3/2) lithochromic mottles; common fine flakes of mica; neutral.

Range in Characteristics

Thickness of soft bedrock: 40 to about 70 inches

Thickness of hard bedrock: More than 60 inches

Reaction: Strongly acid to slightly acid in the A and E horizons and slightly acid or neutral in the B and C horizons

Content of dark concretions: Few or common in some horizon of most pedons

Content of coarse fragments: 0 to 10 percent throughout the profile

A horizon:

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 2 to 4; value ranges to 3 in pedons where the horizon is less than 6 inches thick

Texture—sandy loam or sandy clay loam

E horizon (if it occurs):

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—sandy loam

Soil Survey of Newberry County, South Carolina

Bt horizon (upper part):

Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8

Texture—clay

Consistence—firm or very firm, sticky or very sticky, and plastic or very plastic

Bt horizon (lower part):

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam, clay loam, or clay

Lithochromic mottles—in shades of yellow, brown, and olive

BC horizon:

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam or clay loam

Lithochromic mottles—in shades of yellow, brown, olive, and black

C horizon:

Color—shades of yellow, brown, olive, gray, and black

Texture—sandy loam, loam, sandy clay loam, or clay loam

Cr horizon:

Color—shades of yellow, brown, gray, and black

Texture—weathered rock material that crushes to sandy loam or loam

Formation of the Soils

The factors of soil formation are discussed and related to soils in the survey area in this section. The morphology of the soil and the processes of soil formation are also explained.

Factors of Soil Formation

Soil is the product of soil-forming processes that act upon material formed, deposited, or accumulated by geologic forces. The five factors of soil formation are parent material, relief, climate, organisms, and time (7). Climate and organisms, such as plants and animals, are the active forces of soil formation. Their effect upon parent material is modified by relief and by the length of time that the parent material has been in place. The importance of each factor varies from place to place. In some areas, one factor may dominate in the formation of a soil and determine most of its properties. Generally, however, the interaction of all the factors determines the kind of soil that forms in any given place.

Parent Material

Parent material is the unconsolidated mass in which a soil forms. In Newberry County, parent material is a major factor in determining what kind of soil forms and can be correlated to some degree to the geology of the area. Parent material is largely responsible for the chemical and mineralogical composition of soils and for the major differences in soil properties among the soils.

In Newberry County, the major parent material of most of the soils is residuum. Soils that formed in residuum have formed *in situ*, or in place, through the weathering of rocks. The underlying rock material from which the residual soils formed is of three primary types: 1) Carolina slates, such as fine-grained metamorphic schists, 2) acidic crystalline rocks, such as granite, gneiss, and schist, and 3) intermediate and mafic crystalline rocks, such as diorite, gabbro, and hornblende schist. Soils that formed from the Carolina slates and schists generally are well drained or moderately well drained and have a high content of clay and silt. Georgetown and Callison soils are examples. The second type of residual parent material, the acidic parent material, transforms into soils that are well developed, are well drained, and have low native fertility. Cecil and Hard Labor soils comprise the largest acreage of these soils in Newberry County. Soils that formed in the third type of residual parent material, intermediate and mafic residuum, generally are somewhat poorly drained to moderately well drained, are clayey, have a higher native fertility than other soils in the survey area, and have significant amounts of expansive clay minerals. Wilkes and Winnsboro are examples of these soils.

The other significant parent material in Newberry County is alluvium, which consists of recent materials that have been transported and deposited by streams and rivers. Most of the alluvium originated from the rocks of nearby uplands, but some came from metamorphosed rocks of the Blue Ridge Mountains to the northwest. The soils that

formed in alluvial material generally are not very well developed and, as a consequence, have little or no distinctive horizonation. Most of these soils are subject to flooding and are moderately well drained to poorly drained. They generally have loamy textures. Examples are Chenneby, Shellbluff, and Toccoa soils.

Relief

Relief, or topography, causes differences in drainage, surface runoff, soil temperature, and the extent of geologic erosion. In Newberry County, relief is largely determined by the kind of underlying bedrock, the geology of the area, and the extent that streams dissect the landscape.

Relief influences the formation of soils primarily by the effects on water movement, erosion, and plant cover. Slopes in the county range from 0 to 50 percent. The upland soils that have slopes of less than 10 percent generally have deeper, better defined profiles than the soils in the steeper areas. Examples are Appling and Cecil soils. On some soils with slopes of more than 15 percent, geologic erosion removes soil material almost as fast as it forms. As a result, many of the strongly sloping to steep soils, such as Pacolet soils, have a thin solum.

On the nearly level flood plains, materials deposited by stream overflow accumulate on the surface at rates that exceed other soil-forming processes. Many soils on flood plains are either Entisols or Inceptisols, which are soils that have no or little development of genetic horizons. Examples of these soils are Cartecay and Shellbluff.

Climate

Climate, particularly temperature and precipitation, affects the chemical, physical, and biological properties of the soil. It influences the rate at which rocks weather and organic matter decomposes. Water dissolves and transports minerals and organic matter as it moves down through the layers in the soil. Water also causes the leaching of soluble bases as it percolates through the soil and the translocation or redistribution of the less soluble, finer textured, and highly weathered materials. Water movement through the soil results in the formation of loamy subsoils, such as in Altavista soils, and clayey subsoils, such as in Georgeville soils. Excessive leaching and the removal of clay occur in sandy soils, such as Buncombe soils. The climate also affects the types of plants and animals living in and on the soil. Temperature influences the kind and growth of organisms and the rate of chemical and physical reactions in the soil.

Organisms

Organisms influence the formation and differentiation of soil horizons. The type and number of organisms in and on the soil are determined partly by climate and partly by the nature of the soil material, the relief, and the age of the soil.

Bacteria, fungi, and other micro-organisms are indispensable in soil development. They aid in the weathering of rocks, in the decomposition of organic matter, and in the release of nutrients to plants. Larger plants and animals alter the soil microclimate, furnish organic matter, and transfer elements from the topsoil to the subsoil and vice versa.

Earthworms and other small invertebrates are mostly active in the surface layer and in the upper part of the subsoil. They slowly but continually mix the soil material between these horizons.

Animals play a role in soil formation by eating plants and then returning and distributing plant nutrients to the soil. Burrowing animals efficiently mix soil material, which also plays a role in the formation of the soil.

Large trees affect soil formation by bringing nutrients up from deep within the soil. As a result of windthrow, soil can be moved from varying depths to the surface where it is exposed to the more rapid soil-forming processes that occur near the soil surface. Also, as large roots decay, the voids are filled by material from above.

Organic matter decomposes rapidly in the county because of the moderate temperatures, the abundant moisture supply, and the character of the organic material. Organic matter decays so rapidly that little of it accumulates in the soil.

Time

The length of time that soil material has been exposed to the soil-forming processes accounts for some of the differences between soils. The soils in the survey area vary considerably in age and range from young to mature. Old soils, such as Appling and Georgeville soils in the Piedmont uplands, have well defined horizons. In contrast, young soils, such as Buncombe and Toccoa soils, formed in recent alluvium on flood plains and have not been in place long enough to develop as completely as soils in the uplands.

Morphology of the Soils

The interaction of the soil-forming factors results in distinguishable layers, or horizons, in a soil profile. The soil profile extends from the surface of the soil down to materials that are little altered by the soil-forming processes. The five major horizons that occur in the soils of Newberry County are the A, E, B, C, and R horizons. The first four of these horizons, the A, E, B, and C, can be subdivided to indicate variations within a horizon. An example is a Bt₂ horizon, which represents a layer within the B horizon that consists of translocated clay eluviated from the A and E horizons.

The *A horizon* is a mineral surface layer that has been darkened by the accumulation of organic matter. Worsham soils have a dark A horizon.

The *E horizon* is an eluvial horizon that has been leached of clay, iron, and aluminum. Generally, it is a light-colored layer composed of resistant materials, such as sand- and silt-sized quartz. Although this horizon does not occur in all soils, it is distinct in sandy or loamy forest soils. Rion and Santuc soils generally have well expressed E horizons.

The *B horizon* is an illuvial horizon that has an accumulation of clay, iron, aluminum, and other compounds leached from the A and E horizons. In Newberry County, soils that have layers of clay accumulation, or Bt horizons, are common on the Piedmont uplands and on old river terraces. Cecil and Hiwassee soils have well developed Bt horizons. On flood plains, less developed layers, or Bw horizons, commonly form. These horizons generally have weak blocky structure and are brighter in color than the overlying horizons. Chenneby and Shellbluff soils have Bw horizons.

The *C horizon* consists of the parent material of the soil. It is material that has been modified by weathering but has been only slightly altered by the soil-forming processes. It generally does not have a structure and contains few, if any, roots.

The *R layer* is hard bedrock, such as granite, schist, or diorite, that underlies the soils of Newberry County. These layers are cemented, and the difficulty of excavation exceeds moderate. The R layer is sufficiently coherent when moist so that hand digging with a spade is impractical, but it may be chipped or scraped. Some R layers can be ripped with heavy power equipment. The bedrock may contain cracks that generally are too few and too small to allow roots to penetrate at intervals of less than 10 centimeters. The cracks may be coated or filled with clay or other material. Examples of soils that have R layers within 6 feet of the soil surface are Callison and Wilkes soils.

Processes of Horizon Differentiation

Soils form as the result of the physical weathering of parent rocks, the chemical weathering of rock fragments and organic matter, the transfer of materials, and the gains and losses of organic matter and minerals.

Soil formation begins with the physical weathering of rocks. Large pieces of rock are broken into smaller pieces by frost action, expansion, contraction, and other forces. The rocks and rock fragments are further reduced to sand-, silt-, and clay-sized particles. These particles form the unconsolidated material in which plants can grow. Organic material is added to the soil when plants and animals die.

Soil constituents are transferred from one part of the soil to another. Organic matter in suspension moves from the surface layer to the subsoil. Calcium and other elements are leached from the surface layer. These elements are generally held by the clay in the subsoil or the substratum, but some are leached from the soil by percolating water.

Bases are absorbed by the roots of plants and stored in stems, leaves, and twigs. When plants die and decay, the elements are absorbed by the plants as they are returned to the soil. In most soils in Newberry County, the translocation and development of clay minerals have had a strong influence on the development of soil horizons. As the soil develops, horizons gradually develop recognizable characteristics that make one horizon distinguishable from another.

The accumulation and incorporation of organic matter takes place as the plant residue decomposes. Organic matter darkens the surface layer and helps form the A horizon. In many places the surface layer has been eroded away or has been mixed with materials from underlying layers through cultivation. Once lost, organic matter takes a long time to replace. In Newberry County, the organic matter content of the surface layer ranges from low, as in Appling and Buncombe soils, to moderate, as in Worsham soils.

For soils to have distinct subsoil horizons, some of the lime and soluble salts must be leached before the translocation of clay minerals can take place. Among the factors that affect this leaching are the salts originally present, the depth to which the soil solution percolates, and the texture of the soil profile.

Well drained and moderately well drained soils in Newberry County have a strong brown, yellowish red, or red subsoil. These colors are caused mainly by thin coatings of iron oxides on the soil particles, although in some soils the color is inherited from the materials in which they formed. The structure of the subsoil is commonly weak to moderately subangular blocky. The subsoil contains more clay than the overlying surface horizon.

The reduction and transfer of iron, called gleying, is associated mainly with the wetter, more poorly drained soils. Moderately well drained soils, such as Altavista, generally have brown, yellow, and red redoximorphic features that indicate the segregation of iron. In poorly drained soils, such as Worsham, the subsoil and underlying material are grayish, which indicates reduction and transfer of iron by removal in solution.

References

- (1) American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th ed.
- (2) American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Stand. D2487-00.
- (3) Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildl. Serv. FWS/OBS-79/31.
- (4) Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- (5) Federal Register. September 18, 2002. Hydric soils of the United States.
- (6) Hurt, G.W., P.M. Whited, and R.F. Pringle, editors. 2002. Field indicators of hydric soils in the United States. Ver. 5.0.
- (7) Jenny, Hans. 1941. Factors of soil formation.
- (8) National Research Council. 1995. Wetlands: Characteristics and boundaries.
- (9) Pope, Thomas H. 1974. The history of Newberry County, South Carolina. Volume 1: 1749-1860.
- (10) Pope, Thomas H. 1992. The history of Newberry County, South Carolina. Volume 2: 1860-1990.
- (11) Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and W.D. Broderson, editors. 2002. Field book for describing and sampling soils. Ver. 2.0. U.S. Dep. Agric., Natural Resources Conserv. Serv.
- (12) Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildl. Serv. and Del. Dep. Natural Resources and Environ. Control, Wetl. Sec.
- (13) United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Exp. Stn. Tech. Rep. Y-87-1.
- (14) United States Department of Agriculture, Bureau of Soils. 1918. Soil survey of Newberry County, South Carolina.
- (15) United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. <http://soils.usda.gov/>

Soil Survey of Newberry County, South Carolina

- (16) United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. <http://soils.usda.gov/>
- (17) United States Department of Agriculture, Natural Resources Conservation Service. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd ed. Soil Surv. Staff. U.S. Dep. Agric. Handb. 436.
- (18) United States Department of Agriculture, Natural Resources Conservation Service. 2003. Keys to soil taxonomy. 9th ed. Soil Surv. Staff.
- (19) United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Dep. Agric. Handb. 296. <http://soils.usda.gov/>
- (20) United States Department of Agriculture, Soil Conservation Service. 1960. Soil survey of Newberry County, South Carolina.
- (21) United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Dep. Agric. Handb. 210.
- (22) United States Department of Agriculture, Soil Conservation Service. 1993. Soil survey manual. Soil Surv. Staff. U.S. Dep. Agric. Handb. 18. <http://soils.usda.gov/technical/>.
- (23) United States Department of Commerce, Bureau of the Census. 2000. Census 2000. <http://www.census.gov/main/www/cen2000.html>.

Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the “National Soil Survey Handbook” (available in local offices of the Natural Resources Conservation Service or on the Internet).

ABC soil. A soil having an A, a B, and a C horizon.

AC soil. A soil having only an A and a C horizon. Commonly, such soil formed in recent alluvium or on steep, rocky slopes.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Alpha,alpha-dipyridyl. A compound that when dissolved in ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction implies reducing conditions and the likely presence of redoximorphic features.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces. Also called slope aspect.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Backswamp. A flood-plain landform. Extensive, marshy or swampy, depressed areas of flood plains between natural levees and valley sides or terraces.

Basal area. The area of a cross section of a tree, generally referring to the section at

breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Base slope (geomorphology). A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).

Bedding plane. A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.

Bedding system. A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Bottom land. An informal term loosely applied to various portions of a flood plain.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breaks. A landscape or tract of steep, rough or broken land dissected by ravines and gullies and marking a sudden change in topography.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Cable yarding. A method of moving felled trees to a nearby central area for transport to a processing facility. Most cable yarding systems involve use of a drum, a pole, and wire cables in an arrangement similar to that of a rod and reel used for fishing. To reduce friction and soil disturbance, felled trees generally are reeled in while one end is lifted or the entire log is suspended.

California bearing ratio (CBR). The load-supporting capacity of a soil as compared to that of standard crushed limestone, expressed as a ratio. First standardized in California. A soil having a CBR of 16 supports 16 percent of the load that would be supported by standard crushed limestone, per unit area, with the same degree of distortion.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or "chain," of soils on a landscape that formed in similar kinds of

parent material and under similar climatic conditions but that have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a chanter.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. See Redoximorphic features.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Claypan. A dense, compact subsoil layer that contains much more clay than the overlying materials, from which it is separated by a sharply defined boundary. The layer restricts the downward movement of water through the soil. A claypan is commonly hard when dry and plastic and sticky when wet.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

COLE (coefficient of linear extensibility). See Linear extensibility.

Colluvium. Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. See Redoximorphic features.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

- Conservation tillage.** A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.
- Consistence, soil.** Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."
- Contour stripcropping.** Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.
- Control section.** The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.
- Corrosion (geomorphology).** A process of erosion whereby rocks and soil are removed or worn away by natural chemical processes, especially by the solvent action of running water, but also by other reactions, such as hydrolysis, hydration, carbonation, and oxidation.
- Corrosion (soil survey interpretations).** Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.
- Cover crop.** A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.
- Crop residue management.** Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.
- Cropping system.** Growing crops according to a planned system of rotation and management practices.
- Cross-slope farming.** Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.
- Crown.** The upper part of a tree or shrub, including the living branches and their foliage.
- Culmination of the mean annual increment (CMAI).** The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.
- Cutbanks cave (in tables).** The walls of excavations tend to cave in or slough.
- Decreasers.** The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.
- Deferred grazing.** Postponing grazing or resting grazing land for a prescribed period.
- Dense layer (in tables).** A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.
- Depth, soil.** Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.
- Dip slope.** A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.
- Diversion (or diversion terrace).** A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.
- Divided-slope farming.** A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the

hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained*, *somewhat excessively drained*, *well drained*, *moderately well drained*, *somewhat poorly drained*, *poorly drained*, and *very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.

Draw. A small stream valley that generally is shallower and more open than a ravine or gulch and that has a broader bottom. The present stream channel may appear inadequate to have cut the drainageway that it occupies.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Ecological site. An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Erosion pavement. A surficial lag concentration or layer of gravel and other rock fragments that remains on the soil surface after sheet or rill erosion or wind has removed the finer soil particles and that tends to protect the underlying soil from further erosion.

Erosion surface. A land surface shaped by the action of erosion, especially by running water.

- Escarpment.** A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Most commonly applied to cliffs produced by differential erosion.
Synonym: scarp.
- Extrusive rock.** Igneous rock derived from deep-seated molten matter (magma) deposited and cooled on the earth's surface.
- Fallow.** Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.
- Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.
- Fibric soil material (peat).** The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.
- Field moisture capacity.** The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity*, *normal moisture capacity*, or *capillary capacity*.
- Fill slope.** A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.
- Fine textured soil.** Sandy clay, silty clay, or clay.
- Firebreak.** An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.
- First bottom.** An obsolete, informal term loosely applied to the lowest flood-plain steps that are subject to regular flooding.
- Flaggy soil material.** Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.
- Flagstone.** A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.
- Flood plain.** The nearly level plain that borders a stream and is subject to flooding unless protected artificially.
- Flood-plain landforms.** A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.
- Flood-plain step.** An essentially flat, terrace-like alluvial surface within a valley that is frequently covered by floodwater from the present stream; any approximately horizontal surface still actively modified by fluvial scour and/or deposition. May occur individually or as a series of steps.
- Fluvial.** Of or pertaining to rivers or streams; produced by stream or river action.
- Foothills.** A region of steeply sloping hills that fringes a mountain range or high-plateau escarpment. The hills have relief of as much as 1,000 feet (300 meters).
- Footslope.** The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).
- Forb.** Any herbaceous plant not a grass or a sedge.
- Forest cover.** All trees and other woody plants (underbrush) covering the ground in a forest.

- Forest type.** A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.
- Fragipan.** A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.
- Genesis, soil.** The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.
- Gleyed soil.** Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.
- Graded stripcropping.** Growing crops in strips that grade toward a protected waterway.
- Grassed waterway.** A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.
- Gravel.** Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.
- Gravelly soil material.** Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.
- Green manure crop (agronomy).** A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.
- Ground water.** Water filling all the unblocked pores of the material below the water table.
- Gully.** A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.
- Hard bedrock.** Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.
- Hard to reclaim (in tables).** Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.
- Hardpan.** A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.
- Head slope (geomorphology).** A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.
- Hemic soil material (mucky peat).** Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.
- High-residue crops.** Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.
- Hill.** A generic term for an elevated area of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential.

The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties include depth to a seasonal high water table, the infiltration rate, and depth to a layer that significantly restricts the downward movement of water. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., andesite, basalt, and granite).

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Increasers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given

instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Interfluv. A landform composed of the relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction. An elevated area between two drainageways that sheds water to those drainageways.

Interfluv (geomorphology). A geomorphic component of hills consisting of the uppermost, comparatively level or gently sloping area of a hill; shoulders of backwearing hillslopes can narrow the upland or can merge, resulting in a strongly convex shape.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron depletions. See Redoximorphic features.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Knoll. A small, low, rounded hill rising above adjacent landforms.

K_{sat}. See Saturated hydraulic conductivity.

Landslide. A general, encompassing term for most types of mass movement

landforms and processes involving the downslope transport and outward deposition of soil and rock materials caused by gravitational forces; the movement may or may not involve saturated materials. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $\frac{1}{3}$ - or $\frac{1}{10}$ -bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Low strength. The soil is not strong enough to support loads.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Mass movement. A generic term for the dislodgment and downslope transport of soil and rock material as a unit under direct gravitational stress.

Masses. See Redoximorphic features.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement at depth in the earth's crust. Nearly all such rocks are crystalline.

Mine spoil. An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation. Also called earthy fill.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. A kind of map unit that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few*, *common*, and *many*; size—*fine*, *medium*, and *coarse*; and contrast—*faint*, *distinct*, and *prominent*. The size

measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

Mountain. A generic term for an elevated area of the land surface, rising more than 1,000 feet (300 meters) above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range. Mountains are formed primarily by tectonic activity and/or volcanic action but can also be formed by differential erosion.

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mudstone. A blocky or massive, fine-grained sedimentary rock in which the proportions of clay and silt are approximately equal. Also, a general term for such material as clay, silt, claystone, siltstone, shale, and argillite and that should be used only when the amounts of clay and silt are not known or cannot be precisely identified.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. See Redoximorphic features.

Nose slope (geomorphology). A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent. Nose slopes consist dominantly of colluvium and slope-wash sediments (for example, slope alluvium).

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan*, *fragipan*, *claypan*, *plowpan*, and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. See also Saturated hydraulic conductivity. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil

physics, the rate is referred to as “saturated hydraulic conductivity.” Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plateau (geomorphology). A comparatively flat area of great extent and elevation; specifically, an extensive land region that is considerably elevated (more than 100 meters) above the adjacent lower-lying terrain, is commonly limited on at least one side by an abrupt descent, and has a flat or nearly level surface. A comparatively large part of a plateau surface is near summit level.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poorly graded. Refers to a coarse-grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Pore linings. See Redoximorphic features.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides and include nodules and concretions, masses, and pore linings. *Nodules and concretions* are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure. *Masses* are noncemented concentrations of substances within the soil matrix. *Pore linings* are zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.
2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out and include iron depletions and clay depletions. *Iron depletions* are zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix. *Clay depletions* are zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletons).
3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in place from all kinds of bedrock and alluvial deposits.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

Rill. A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill

generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.

Riser. The vertical or steep side slope (e.g., escarpment) of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural, steplike landforms, such as successive stream terraces.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments ranging from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saturated hydraulic conductivity (K_{sat}). The ease with which pores of a saturated soil transmit water. Formally, the proportionality coefficient that expresses the relationship of the rate of water movement to hydraulic gradient in Darcy's Law, a law that describes the rate of water movement through porous media. Commonly abbreviated as K_{sat} . Terms describing saturated hydraulic conductivity are *very high*, 100 or more micrometers per second (14.17 or more inches per hour); *high*, 10 to 100 micrometers per second (1.417 to 14.17 inches per hour); *moderately high*, 1 to 10 micrometers per second (0.1417 inch to 1.417 inches per hour); *moderately low*, 0.1 to 1 micrometer per second (0.01417 to 0.1417 inch per hour); *low*, 0.01 to 0.1 micrometer per second (0.001417 to 0.01417 inch per hour); and *very low*, less than 0.01 micrometer per second (less than 0.001417 inch per hour). To convert inches per hour to micrometers per second, multiply inches per hour by 7.0572. To convert micrometers per second to inches per hour, multiply micrometers per second by 0.1417.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.

- Sheet erosion.** The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- Shoulder.** The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.
- Shrink-swell** (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- Side slope** (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.
- Silica.** A combination of silicon and oxygen. The mineral form is called quartz.
- Silt.** As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- Siltstone.** An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.
- Similar soils.** Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.
- Sinkhole.** A closed, circular or elliptical depression, commonly funnel shaped, characterized by subsurface drainage and formed either by dissolution of the surface of underlying bedrock (e.g., limestone, gypsum, or salt) or by collapse of underlying caves within bedrock. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography.
- Site index.** A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.
- Slickensides** (pedogenic). Grooved, striated, and/or glossy (shiny) slip faces on structural peds, such as wedges; produced by shrink-swell processes, most commonly in soils that have a high content of expansive clays.
- Slope.** The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for simple slopes are as follows:

Level	0 to 1 percent
Nearly level	0 to 2 percent
Very gently sloping	2 to 6 percent
Gently sloping	6 to 10 percent
Moderately sloping	10 to 15 percent
Strongly sloping	15 to 25 percent
Steep	25 to 45 percent
Very steep	45 percent and higher

Classes for complex slopes are as follows:

Level	0 to 1 percent
Nearly level	0 to 2 percent
Gently undulating	2 to 7 percent
Undulating	7 to 15 percent
Rolling	15 to 35 percent
Steep	35 to 50 percent
Very steep	50 percent and higher

Slope alluvium. Sediment gradually transported down the slopes of mountains or hills primarily by nonchannel alluvial processes (i.e., slope-wash processes) and characterized by particle sorting. Lateral particle sorting is evident on long slopes. In a profile sequence, sediments may be distinguished by differences in size and/or specific gravity of rock fragments and may be separated by stone lines. Burnished peds and sorting of rounded or subrounded pebbles or cobbles distinguish these materials from unsorted colluvial deposits.

Slow refill (in tables). The slow filling of ponds, resulting from restricted water transmission in the soil.

Slow water movement (in tables). Restricted downward movement of water through the soil. See Saturated hydraulic conductivity.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stone line. In a vertical cross section, a line formed by scattered fragments or a discrete layer of angular and subangular rock fragments (commonly a gravel- or cobble-sized lag concentration) that formerly was draped across a topographic surface and was later buried by additional sediments. A stone line generally caps material that was subject to weathering, soil formation, and erosion before burial. Many stone lines seem to be buried erosion pavements, originally formed by sheet and rill erosion across the land surface.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either

single grained (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summer fallow. The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the “plow layer,” or the “Ap horizon.”

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terrace (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, and clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying “coarse,” “fine,” or “very fine.”

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

- Trace elements.** Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- Tread.** The flat to gently sloping, topmost, laterally extensive slope of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural steplike landforms, such as successive stream terraces.
- Upland.** An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.
- Variegation.** Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.
- Weathering.** All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth's surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.
- Well graded.** Refers to soil material consisting of coarse-grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.
- Wilting point (or permanent wilting point).** The moisture content of soil, on an oven-dry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.
- Windthrow.** The uprooting and tipping over of trees by the wind.

Tables

Soil Survey of Newberry County, South Carolina

Table 1.--Temperature and Precipitation

(Recorded in the period 1961-90 at Little Mountain, South Carolina)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have--		Average number of growing degree days*	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more	Average snow- fall
				Maximum temp. higher than--	Minimum temp. lower than--			Less than--	More than--		
	<u>°F</u>	<u>°F</u>	<u>°F</u>	<u>°F</u>	<u>°F</u>	<u>Units</u>	<u>In</u>	<u>In</u>	<u>In</u>		<u>In</u>
January--	53.4	33.3	43.4	74	7	48	4.64	2.78	6.31	7	0.8
February--	57.8	35.6	46.7	78	14	72	3.97	1.98	5.70	6	1.5
March----	66.7	43.3	55.0	85	21	207	5.06	2.73	7.12	7	0.6
April----	75.0	50.6	62.8	90	31	388	3.25	1.57	4.70	5	0.0
May-----	81.8	58.9	70.3	94	40	630	3.74	2.25	5.08	6	0.0
June-----	87.7	65.8	76.8	99	50	800	3.86	1.90	5.56	6	0.0
July-----	90.4	69.4	79.9	101	60	922	4.89	2.80	6.75	7	0.0
August---	89.0	68.6	78.8	99	57	887	4.96	2.55	7.06	7	0.0
September	83.7	63.0	73.4	96	45	698	4.13	1.52	6.30	5	0.0
October--	74.8	51.5	63.2	89	31	409	3.15	0.83	5.19	3	0.0
November-	66.1	43.7	54.9	83	22	196	2.97	1.63	4.16	5	0.0
December-	56.8	36.4	46.6	76	12	78	3.90	1.87	5.65	6	0.1
Yearly: Average	73.6	51.7	62.6	---	---	---	---	---	---	---	---
Extreme	106	-2	---	102	5	---	---	---	---	---	---
Total--	---	---	---	---	---	5,336	48.52	42.52	54.11	70	2.9

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

Soil Survey of Newberry County, South Carolina

Table 2.—Freeze Dates in Spring and Fall

(Recorded in the period 1961-1990 at Little Mountain, South Carolina)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Mar. 19	Apr. 5	Apr. 15
2 years in 10 later than--	Mar. 12	Mar. 28	Apr. 9
5 years in 10 later than--	Feb. 28	Mar. 14	Mar. 29
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 12	Nov. 1	Oct. 21
2 years in 10 earlier than--	Nov. 20	Nov. 7	Oct. 27
5 years in 10 earlier than--	Dec. 5	Nov. 17	Nov. 8

Table 3.—Growing Season

(Recorded in the period 1971-2000 at Bishopville, South Carolina)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	<u>Days</u>	<u>Days</u>	<u>Days</u>
9 years in 10	245	221	200
8 years in 10	257	231	208
5 years in 10	280	248	223
2 years in 10	304	265	239
1 year in 10	316	274	247

Soil Survey of Newberry County, South Carolina

Table 4.—Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
AtB	Altavista sandy loam, 2 to 6 percent slopes-----	378	*
CaB	Callison silt loam, 2 to 6 percent slopes-----	5,757	1.4
CaC	Callison silt loam, 6 to 10 percent slopes-----	3,220	0.8
CcA	Cartecay sandy loam, 0 to 2 percent slopes, frequently flooded-----	658	0.2
CdB2	Cataula sandy loam, 2 to 6 percent slopes, moderately eroded-----	345	*
CdC2	Cataula sandy loam, 6 to 10 percent slopes, moderately eroded-----	299	*
CeB	Cecil sandy loam, 2 to 6 percent slopes-----	5,049	1.2
CfB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded-----	81,036	19.6
CfC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded-----	40,590	9.8
CfD2	Cecil sandy clay loam, 10 to 15 percent slopes, moderately eroded-----	850	0.2
CnA	Chenneby silt loam, 0 to 2 percent slopes, frequently flooded-----	9,713	2.3
CyA	Chenneby silt loam, 0 to 2 percent slopes, ponded-----	492	0.1
DaB2	Davidson sandy clay loam, 2 to 6 percent slopes, moderately eroded-----	196	*
GaB2	Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded---	10,571	2.6
GaC2	Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded---	4,309	1.0
GnC2	Gundy silt loam, 6 to 10 percent slopes, moderately eroded-----	2,047	0.5
GnD2	Gundy silt loam, 10 to 15 percent slopes, moderately eroded-----	4,053	1.0
GnE2	Gundy silt loam, 15 to 25 percent slopes, moderately eroded-----	1,187	0.3
HaB	Hard Labor sandy loam, 2 to 6 percent slopes-----	33,271	8.0
HaC	Hard Labor sandy loam, 6 to 10 percent slopes-----	12,096	2.9
HeB	Helena sandy loam, 2 to 6 percent slopes-----	9,448	2.3
HeC	Helena sandy loam, 6 to 10 percent slopes-----	4,304	1.0
HwB2	Hiwassee sandy loam, 2 to 6 percent slopes, moderately eroded-----	453	0.1
HwD2	Hiwassee sandy loam, 6 to 15 percent slopes, moderately eroded-----	139	*
McB	Mecklenburg sandy loam, 2 to 6 percent slopes-----	175	*
MeB2	Mecklenburg sandy clay loam, 2 to 6 percent slopes, moderately eroded---	475	0.1
MeC2	Mecklenburg sandy clay loam, 6 to 10 percent slopes, moderately eroded---	299	*
PaD2	Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded-----	4,739	1.1
PaE2	Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded-----	14,488	3.5
PaF2	Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded-----	1,120	0.3
PcC3	Pacolet clay loam, 6 to 10 percent slopes, severely eroded-----	265	*
PmB	Prosperity-Bush River-Helena complex, 2 to 6 percent slopes-----	5,362	1.3
PmC	Prosperity-Bush River-Helena complex, 6 to 10 percent slopes-----	1,827	0.4
RnC2	Rion sandy loam, 6 to 10 percent slopes, moderately eroded-----	3,186	0.8
RnD2	Rion sandy loam, 10 to 15 percent slopes, moderately eroded-----	5,676	1.4
RnE2	Rion sandy loam, 15 to 25 percent slopes, moderately eroded-----	9,978	2.4
RnF2	Rion sandy loam, 25 to 50 percent slopes, moderately eroded-----	1,890	0.5
SaB	Santuc loamy coarse sand, 2 to 6 percent slopes-----	8,061	1.9
SaC	Santuc loamy coarse sand, 6 to 10 percent slopes-----	2,285	0.6
SeB	Sedgefield sandy loam, 0 to 4 percent slopes-----	1,574	0.4
ShA	Shellbluff silty clay loam, 0 to 2 percent slopes, frequently flooded---	3,469	0.8
ToA	Toccoa sandy loam, 0 to 3 percent slopes, frequently flooded-----	12,531	3.0
UcC2	Urban land-Cecil complex, 2 to 10 percent slopes, moderately eroded-----	642	0.2
UsC	Urban land-Cecil-Santuc complex, 2 to 10 percent slopes-----	4,002	1.0
W	Water-----	13,626	3.3
WnB	Winnsboro sandy loam, 2 to 6 percent slopes-----	4,335	1.0
WoA	Worsham loam, 0 to 2 percent slopes-----	365	*
WwD2	Wynott-Wilkes complex, 10 to 15 percent slopes, moderately eroded-----	1,422	0.3
WwE2	Wynott-Wilkes complex, 15 to 25 percent slopes, moderately eroded-----	5,882	1.4
WyB2	Wynott-Winnsboro complex, 2 to 6 percent slopes, moderately eroded-----	7,281	1.8
WyC2	Wynott-Winnsboro complex, 6 to 10 percent slopes, moderately eroded-----	13,664	3.3
1B	Appling loamy sand, 2 to 7 percent slopes-----	1,258	0.3
1C	Appling loamy sand, 7 to 15 percent slopes-----	1,407	0.3
2B2	Appling sandy clay loam, 2 to 7 percent slopes, moderately eroded-----	47	*
2C2	Appling sandy clay loam, 7 to 15 percent slopes, moderately eroded-----	434	0.1
3B	Buncombe coarse sand, 0 to 3 percent slopes, rarely flooded-----	3	*
5A	Cartecay sandy loam, 0 to 2 percent slopes, occasionally flooded-----	500	0.1
7B	Cataula sandy loam, 2 to 7 percent slopes-----	37	*
8B2	Cataula sandy clay loam, 2 to 7 percent slopes, moderately eroded-----	99	*
8C2	Cataula sandy clay loam, 7 to 15 percent slopes, moderately eroded-----	73	*
10B	Cecil sandy loam, 2 to 7 percent slopes-----	1,243	0.3

See footnote at end of table.

Soil Survey of Newberry County, South Carolina

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
10C	Cecil sandy loam, 7 to 15 percent slopes-----	268	*
11B2	Cecil sandy clay loam, 2 to 7 percent slopes, moderately eroded-----	8,953	2.2
11C2	Cecil sandy clay loam, 7 to 15 percent slopes, moderately eroded-----	13,025	3.1
11D2	Cecil sandy clay loam, 15 to 25 percent slopes, moderately eroded-----	106	*
12B3	Cecil clay loam, 2 to 7 percent slopes, severely eroded-----	24	*
12C3	Cecil clay loam, 7 to 15 percent slopes, severely eroded-----	418	0.1
13A	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded-----	1,287	0.3
32B2	Hiwassee sandy clay loam, 2 to 7 percent slopes, moderately eroded-----	72	*
32C2	Hiwassee sandy clay loam, 7 to 15 percent slopes, moderately eroded-----	9	*
40B	Mecklenburg sandy loam, 2 to 7 percent slopes-----	117	*
41B2	Mecklenburg sandy clay loam, 2 to 7 percent slopes, moderately eroded---	198	*
41C2	Mecklenburg sandy clay loam, 7 to 15 percent slopes, moderately eroded---	532	0.1
41D2	Mecklenburg sandy clay loam, 15 to 25 percent slopes, moderately eroded--	118	*
44C2	Pacolet sandy clay loam, 7 to 15 percent slopes, moderately eroded-----	163	*
44D2	Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded-----	4,371	1.1
44E2	Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded-----	420	0.1
45D3	Pacolet clay loam, 15 to 25 percent slopes, severely eroded-----	415	0.1
45E3	Pacolet clay loam, 25 to 50 percent slopes, severely eroded-----	57	*
47C2	Rion sandy loam, 7 to 15 percent slopes, moderately eroded-----	1,024	0.2
47D2	Rion sandy loam, 15 to 25 percent slopes, moderately eroded-----	4,262	1.0
47E2	Rion sandy loam, 25 to 50 percent slopes, moderately eroded-----	1,045	0.3
48D3	Rion sandy clay loam, 15 to 25 percent slopes, severely eroded-----	2	*
28B	Santuc loamy coarse sand, 2 to 7 percent slopes-----	642	0.2
28C	Santuc loamy coarse sand, 7 to 15 percent slopes-----	1,082	0.3
15A	Shellbluff silty clay loam, 0 to 2 percent slopes, occasionally flooded--	866	0.2
49A	Toccoa sandy loam, 0 to 2 percent slopes, occasionally flooded-----	3,747	0.9
50E	Udorthents, 5 to 30 percent slopes-----	165	*
60C2	Wilkes sandy loam, 7 to 15 percent slopes, moderately eroded-----	29	*
60D2	Wilkes sandy loam, 15 to 25 percent slopes, moderately eroded-----	219	*
22B	Winnsboro sandy loam, 2 to 7 percent slopes-----	674	0.2
22C	Winnsboro sandy loam, 7 to 15 percent slopes-----	399	*
23B2	Winnsboro sandy clay loam, 2 to 7 percent slopes, moderately eroded-----	536	0.1
23C2	Winnsboro sandy clay loam, 7 to 15 percent slopes, moderately eroded----	3,027	0.7
23D2	Winnsboro sandy clay loam, 15 to 25 percent slopes, moderately eroded---	2,028	0.5
24D3	Winnsboro sandy clay loam, 15 to 25 percent slopes, severely eroded-----	19	*
	Total-----	414,500	100.0

* Less than 0.1 percent.

Soil Survey of Newberry County, South Carolina

Table 5.—Land Capability and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Pasture	Soybeans	Wheat
		<u>Bu</u>	<u>Tons</u>	<u>AUM</u>	<u>Bu</u>	<u>Bu</u>
AtB:						
Altavista-----	2e	115.00	---	11.50	38.00	55.00
CaB:						
Callison-----	2e	90.00	---	---	30.00	40.00
CaC:						
Callison-----	3e	90.00	---	---	30.00	40.00
CcA:						
Cartecay-----	5w	---	---	---	---	---
CdB2:						
Cataula-----	3e	70.00	---	---	---	50.00
CdC2:						
Cataula-----	4e	70.00	---	---	---	50.00
CeB:						
Cecil-----	2e	95.00	3.20	8.00	35.00	---
CfB2:						
Cecil-----	3e	70.00	2.40	5.50	25.00	---
CfC2:						
Cecil-----	4e	70.00	2.40	5.50	25.00	---
CfD2:						
Cecil-----	4e	70.00	2.40	5.50	25.00	---
CnA:						
Chenneby-----	4w	80.00	---	---	30.00	---
CyA:						
Chenneby-----	4w	---	---	---	---	---
DaB2:						
Davidson-----	3e	90.00	---	---	40.00	---
GaB2:						
Georgeville-----	3e	95.00	---	---	---	---
GaC2:						
Georgeville-----	4e	95.00	---	---	---	---
GnC2:						
Gundy-----	3e	65.00	---	---	25.00	---
GnD2:						
Gundy-----	4e	65.00	---	---	25.00	---
GnE2:						
Gundy-----	6e	65.00	---	---	25.00	---
HaB:						
Hard Labor-----	2e	80.00	4.80	8.00	35.00	45.00

Soil Survey of Newberry County, South Carolina

Table 5.—Land Capability and Yields per Acre of Crops and Pasture—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Pasture	Soybeans	Wheat
		<u>Bu</u>	<u>Tons</u>	<u>AUM</u>	<u>Bu</u>	<u>Bu</u>
HaC: Hard Labor-----	3e	80.00	4.80	8.00	35.00	45.00
HeB: Helena-----	2e	80.00	3.50	5.80	---	---
HeC: Helena-----	3e	80.00	3.50	5.80	---	---
HwB2: Hiwassee-----	3e	90.00	3.90	8.50	30.00	50.00
HwD2: Hiwassee-----	4e	90.00	3.90	8.50	30.00	50.00
McB: Mecklenburg-----	2e	90.00	3.60	6.00	40.00	---
MeB2: Mecklenburg-----	3e	90.00	3.60	6.00	40.00	---
MeC2: Mecklenburg-----	4e	90.00	3.60	6.00	40.00	---
PaD2: Pacolet-----	6e	55.00	---	7.50	20.00	25.00
PaE2: Pacolet-----	7e	55.00	---	7.50	20.00	25.00
PaF2: Pacolet-----	7e	55.00	---	7.50	20.00	25.00
PcC3: Pacolet-----	4e	55.00	---	7.50	20.00	25.00
PmB: Prosperity-----	2e	80.00	3.50	5.80	---	---
Bush River-----	2e	80.00	3.50	5.80	---	---
Helena-----	2e	80.00	3.50	5.80	---	---
PmC: Prosperity-----	3e	80.00	3.50	5.80	---	---
Bush River-----	3e	80.00	3.50	5.80	---	---
Helena-----	3e	80.00	3.50	5.80	---	---
RnC2: Rion-----	4e	85.00	---	---	35.00	40.00
RnD2: Rion-----	6e	85.00	---	---	35.00	40.00
RnE2: Rion-----	7e	85.00	---	---	35.00	40.00
RnF2: Rion-----	8e	85.00	---	---	35.00	40.00

Soil Survey of Newberry County, South Carolina

Table 5.—Land Capability and Yields per Acre of Crops and Pasture—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Pasture	Soybeans	Wheat
		<u>Bu</u>	<u>Tons</u>	<u>AUM</u>	<u>Bu</u>	<u>Bu</u>
SaB: Santuc-----	2e	85.00	3.00	5.80	35.00	45.00
SaC: Santuc-----	3e	85.00	3.00	5.80	35.00	45.00
SeB: Sedgefield-----	2e	85.00	3.30	5.50	35.00	---
ShA: Shellbluff-----	3w	140.00	---	---	40.00	50.00
ToA: Toccoa-----	3w	90.00	4.00	---	---	---
UcC2: Urban land-----	8s	---	---	---	---	---
Cecil-----	4e	---	---	---	---	---
UsC: Urban land-----	8s	---	---	---	---	---
Cecil-----	3e	---	---	---	---	---
Santuc-----	3e	---	---	---	---	---
WnB: Winnsboro-----	2e	85.00	---	---	35.00	45.00
WoA: Worsham-----	4w	70.00	2.70	7.20	30.00	35.00
WwD2: Wynott-----	6e	75.00	4.80	8.00	25.00	30.00
Wilkes-----	6e	---	4.20	7.00	---	---
WwE2: Wynott-----	7e	75.00	4.80	8.00	25.00	30.00
Wilkes-----	7e	---	4.20	7.00	---	---
WyB2: Wynott-----	4e	75.00	4.80	8.00	25.00	30.00
Winnsboro-----	2e	85.00	---	---	35.00	45.00
WyC2: Wynott-----	6e	75.00	4.80	8.00	25.00	30.00
Winnsboro-----	3e	85.00	---	---	35.00	45.00
1B: Appling-----	2e	95.00	3.20	8.00	35.00	---
1C: Appling-----	4e	95.00	3.20	8.00	35.00	---
2B2: Appling-----	2e	95.00	3.20	8.00	35.00	---

Soil Survey of Newberry County, South Carolina

Table 5.—Land Capability and Yields per Acre of Crops and Pasture—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Pasture	Soybeans	Wheat
		<u>Bu</u>	<u>Tons</u>	<u>AUM</u>	<u>Bu</u>	<u>Bu</u>
2C2: Appling-----	4e	95.00	3.20	8.00	35.00	---
3B: Buncombe-----	3s	---	---	4.00	---	---
5A: Cartecay-----	3w	---	---	---	---	---
7B: Cataula-----	3e	70.00	---	---	---	50.00
8B2: Cataula-----	4e	70.00	---	---	---	50.00
8C2: Cataula-----	6e	70.00	---	---	---	50.00
10B: Cecil-----	2e	95.00	3.20	8.00	35.00	---
10C: Cecil-----	4e	95.00	3.20	8.00	35.00	---
11B2: Cecil-----	3e	70.00	2.40	5.50	25.00	---
11C2: Cecil-----	4e	70.00	2.40	5.50	25.00	---
11D2: Cecil-----	6e	70.00	2.40	5.50	25.00	---
12B3: Cecil-----	3e	70.00	2.40	5.50	25.00	---
12C3: Cecil-----	4e	70.00	2.40	5.50	25.00	---
13A: Chenneby-----	2w	80.00	---	---	30.00	---
32B2: Hiwassee-----	3e	90.00	3.90	8.50	30.00	50.00
32C2: Hiwassee-----	4e	90.00	3.90	8.50	30.00	50.00
40B: Mecklenburg-----	2e	90.00	3.60	6.00	40.00	---
41B2: Mecklenburg-----	3e	90.00	3.60	6.00	40.00	---
41C2: Mecklenburg-----	6e	90.00	3.60	6.00	40.00	---
41D2: Mecklenburg-----	6e	90.00	3.60	6.00	40.00	---
44C2: Pacolet-----	6e	55.00	---	7.50	20.00	25.00

Soil Survey of Newberry County, South Carolina

Table 5.—Land Capability and Yields per Acre of Crops and Pasture—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Pasture	Soybeans	Wheat
		<u>Bu</u>	<u>Tons</u>	<u>AUM</u>	<u>Bu</u>	<u>Bu</u>
44D2: Pacolet-----	7e	55.00	---	7.50	20.00	25.00
44E2: Pacolet-----	7e	55.00	---	7.50	20.00	25.00
45D3: Pacolet-----	7e	55.00	---	7.50	20.00	25.00
45E3: Pacolet-----	7e	55.00	---	7.50	20.00	25.00
47C2: Rion-----	6e	85.00	---	---	35.00	40.00
47D2: Rion-----	7e	85.00	---	---	35.00	40.00
47E2: Rion-----	8e	85.00	---	---	35.00	40.00
48D3: Rion-----	7e	85.00	---	---	35.00	40.00
28B: Santuc-----	2e	85.00	3.00	5.80	35.00	45.00
28C: Santuc-----	4e	85.00	3.00	5.80	35.00	45.00
15A: Shellbluff-----	2w	140.00	---	---	40.00	50.00
49A: Toccoa-----	2w	90.00	4.00	---	---	---
50E: Udorthents-----	7e	---	---	---	---	---
60C2: Wilkes-----	6e	---	4.20	7.00	---	---
60D2: Wilkes-----	7e	---	4.20	7.00	---	---
22B: Winnsboro-----	2e	85.00	---	---	35.00	45.00
22C: Winnsboro-----	4e	85.00	---	---	35.00	45.00
23B2: Winnsboro-----	3e	85.00	---	---	35.00	45.00
23C2: Winnsboro-----	6e	85.00	---	---	35.00	45.00
23D2: Winnsboro-----	7e	85.00	---	---	35.00	45.00
24D3: Winnsboro-----	7e	85.00	---	---	35.00	45.00

Soil Survey of Newberry County, South Carolina

Table 6.—Prime Farmland and Other Important Farmlands

(Only the soils considered prime or important farmland are listed. Urban or built-up areas of the soils listed are not considered prime or important farmland)

Map symbol	Map unit name	Farmland classification
AtB	Altavista sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
CeB	Cecil sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
CfB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	Prime farmland in all areas
DaB2	Davidson sandy clay loam, 2 to 6 percent slopes, moderately eroded	Prime farmland in all areas
HaB	Hard Labor sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
HeB	Helena sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
McB	Mecklenburg sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
SaB	Santuc loamy coarse sand, 2 to 6 percent slopes	Prime farmland in all areas
1B	Appling loamy sand, 2 to 7 percent slopes	Prime farmland in all areas
10B	Cecil sandy loam, 2 to 7 percent slopes	Prime farmland in all areas
40B	Mecklenburg sandy loam, 2 to 7 percent slopes	Prime farmland in all areas
28B	Santuc loamy coarse sand, 2 to 7 percent slopes	Prime farmland in all areas
CaB	Callison silt loam, 2 to 6 percent slopes	Farmland of statewide importance
CaC	Callison silt loam, 6 to 10 percent slopes	Farmland of statewide importance
CdB2	Cataula sandy loam, 2 to 6 percent slopes, moderately eroded	Farmland of statewide importance
CdC2	Cataula sandy loam, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance
CfC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance
GaB2	Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded	Farmland of statewide importance
GaC2	Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance
HaC	Hard Labor sandy loam, 6 to 10 percent slopes	Farmland of statewide importance
HeC	Helena sandy loam, 6 to 10 percent slopes	Farmland of statewide importance
HwB2	Hiwassee sandy loam, 2 to 6 percent slopes, moderately eroded	Farmland of statewide importance
MeB2	Mecklenburg sandy clay loam, 2 to 6 percent slopes, moderately eroded	Farmland of statewide importance
MeC2	Mecklenburg sandy clay loam, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance
PmB	Prosperity-Bush River-Helena complex, 2 to 6 percent slopes	Farmland of statewide importance
PmC	Prosperity-Bush River-Helena complex, 6 to 10 percent slopes	Farmland of statewide importance
SaC	Santuc loamy coarse sand, 6 to 10 percent slopes	Farmland of statewide importance
SeB	Sedgefield sandy loam, 0 to 4 percent slopes	Farmland of statewide importance
WnB	Winnsboro sandy loam, 2 to 6 percent slopes	Farmland of statewide importance
WoA	Worsham loam, 0 to 2 percent slopes	Farmland of statewide importance
WyB2	Wynott-Winnsboro complex, 2 to 6 percent slopes, moderately eroded	Farmland of statewide importance
2B2	Appling sandy clay loam, 2 to 7 percent slopes, moderately eroded	Farmland of statewide importance
7B	Cataula sandy loam, 2 to 7 percent slopes	Farmland of statewide importance
8B2	Cataula sandy clay loam, 2 to 7 percent slopes, moderately eroded	Farmland of statewide importance
11B2	Cecil sandy clay loam, 2 to 7 percent slopes, moderately eroded	Farmland of statewide importance
12B3	Cecil clay loam, 2 to 7 percent slopes, severely eroded	Farmland of statewide importance
32B2	Hiwassee sandy clay loam, 2 to 7 percent slopes, moderately eroded	Farmland of statewide importance
41B2	Mecklenburg sandy clay loam, 2 to 7 percent slopes, moderately eroded	Farmland of statewide importance
22B	Winnsboro sandy loam, 2 to 7 percent slopes	Farmland of statewide importance
23B2	Winnsboro sandy clay loam, 2 to 7 percent slopes, moderately eroded	Farmland of statewide importance

Soil Survey of Newberry County, South Carolina

Table 6.—Prime Farmland and Other Important Farmland—Continued

Map symbol	Map unit name	Farmland classification
CcA	Cartecay sandy loam, 0 to 2 percent slopes, frequently flooded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
CnA	Chenneby silt loam, 0 to 2 percent slopes, frequently flooded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
CyA	Chenneby silt loam, 0 to 2 percent slopes, ponded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
5A	Cartecay sandy loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
13A	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
ShA	Shellbluff silty clay loam, 0 to 2 percent slopes, frequently flooded	Prime farmland if protected from flooding or not frequently flooded during the growing season
ToA	Toccoa sandy loam, 0 to 3 percent slopes, frequently flooded	Prime farmland if protected from flooding or not frequently flooded during the growing season
15A	Shellbluff silty clay loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland if protected from flooding or not frequently flooded during the growing season
49A	Toccoa sandy loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland if protected from flooding or not frequently flooded during the growing season

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Very limited Depth to saturated zone Too acid	1.00 0.32	Very limited Depth to saturated zone Too acid	1.00 0.91
CaB: Callison-----	Somewhat limited Depth to saturated zone Too acid Slow water movement Depth to bedrock	0.98 0.32 0.30 0.03	Somewhat limited Depth to saturated zone Too acid Slow water movement Depth to bedrock	0.98 0.91 0.22 0.03
CaC: Callison-----	Somewhat limited Depth to saturated zone Too acid Slow water movement Depth to bedrock Slope	0.98 0.32 0.30 0.03 0.01	Somewhat limited Depth to saturated zone Too acid Slow water movement Depth to bedrock Slope	0.98 0.91 0.22 0.03 0.01
CcA: Cartecay-----	Very limited Depth to saturated zone Flooding Filtering capacity Too acid	1.00 1.00 0.99 0.11	Very limited Depth to saturated zone Flooding Filtering capacity Too acid	1.00 1.00 0.99 0.42
CdB2: Cataula-----	Very limited Slow water movement Dense layer Depth to saturated zone Too acid Low adsorption	1.00 1.00 0.68 0.50 0.10	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption	1.00 0.99 0.68 0.09
CdC2: Cataula-----	Very limited Slow water movement Dense layer Depth to saturated zone Too acid Low adsorption	1.00 1.00 0.68 0.50 0.10	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption Slope	1.00 0.99 0.68 0.10 0.01

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CeB: Cecil-----	Somewhat limited Low adsorption Too acid	0.32 0.32	Somewhat limited Too acid Low adsorption	0.91 0.12
CfB2: Cecil-----	Somewhat limited Low adsorption Too acid	0.50 0.37	Somewhat limited Too acid Low adsorption	0.96 0.53
CfC2: Cecil-----	Somewhat limited Low adsorption Too acid Slope	0.50 0.37 0.01	Somewhat limited Too acid Low adsorption Slope	0.96 0.55 0.01
CfD2: Cecil-----	Somewhat limited Slope Low adsorption Too acid	0.74 0.50 0.37	Somewhat limited Too acid Slope Low adsorption	0.96 0.74 0.55
CnA: Chenneby-----	Very limited Depth to saturated zone Flooding Too acid	1.00 1.00 0.27	Very limited Depth to saturated zone Flooding Too acid	1.00 1.00 0.85
CyA: Chenneby-----	Very limited Ponding Depth to saturated zone Too acid	1.00 1.00 0.27	Very limited Ponding Depth to saturated zone Too acid	1.00 1.00 0.85
DaB2: Davidson-----	Somewhat limited Low adsorption Too acid	0.23 0.22	Somewhat limited Too acid Low adsorption	0.77 0.09
GaB2: Georgeville-----	Somewhat limited Too acid	0.11	Somewhat limited Too acid	0.42
GaC2: Georgeville-----	Somewhat limited Too acid Slope	0.11 0.01	Somewhat limited Too acid Slope	0.42 0.01
GnC2: Gundy-----	Somewhat limited Droughty Too acid Slope	0.16 0.11 0.01	Somewhat limited Too acid Droughty Slope	0.42 0.16 0.01

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
GnD2: Gundy-----	Somewhat limited Slope Droughty Too acid	0.74 0.16 0.11	Somewhat limited Slope Too acid Droughty	0.74 0.42 0.16
GnE2: Gundy-----	Very limited Slope Droughty Too acid	1.00 0.16 0.11	Very limited Slope Too acid Droughty	1.00 0.42 0.16
HaB: Hard Labor-----	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption	1.00 0.11 0.02 0.01	Very limited Slow water movement Too acid Depth to saturated zone	1.00 0.42 0.02
HaC: Hard Labor-----	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption Slope	1.00 0.11 0.02 0.01 0.01	Very limited Slow water movement Too acid Depth to saturated zone Slope	1.00 0.42 0.02 0.01
HeB: Helena-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 1.00 0.62	Very limited Depth to saturated zone Slow water movement Too acid	1.00 1.00 1.00
HeC: Helena-----	Very limited Slow water movement Depth to saturated zone Too acid Slope	1.00 1.00 0.62 0.01	Very limited Depth to saturated zone Slow water movement Too acid Slope	1.00 1.00 1.00 0.01
HwB2: Hiwassee-----	Somewhat limited Too acid	0.11	Somewhat limited Too acid	0.42
HwD2: Hiwassee-----	Somewhat limited Slope Too acid	0.16 0.11	Somewhat limited Too acid Slope	0.42 0.16

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
McB: Mecklenburg-----	Very limited Slow water movement Too acid	1.00 0.11	Very limited Slow water movement Too acid	1.00 0.42
MeB2: Mecklenburg-----	Very limited Slow water movement Too acid	1.00 0.11	Very limited Slow water movement Too acid	1.00 0.42
MeC2: Mecklenburg-----	Very limited Slow water movement Too acid Slope	1.00 0.11 0.01	Very limited Slow water movement Too acid Slope	1.00 0.42 0.01
PaD2: Pacolet-----	Somewhat limited Slope Too acid	0.84 0.32	Somewhat limited Too acid Slope Low adsorption	0.91 0.84 0.39
PaE2: Pacolet-----	Very limited Slope Too acid	1.00 0.32	Very limited Slope Too acid Low adsorption	1.00 0.91 0.39
PaF2: Pacolet-----	Very limited Slope Too acid	1.00 0.32	Very limited Slope Too acid Low adsorption	1.00 0.91 0.39
PcC3: Pacolet-----	Somewhat limited Too acid Low adsorption Slope	0.32 0.01 0.01	Somewhat limited Too acid Low adsorption Slope	0.91 0.38 0.01
PmB: Prosperity-----	Very limited Slow water movement Depth to saturated zone Droughty Too acid Depth to bedrock	1.00 1.00 0.73 0.32 0.10	Very limited Depth to saturated zone Slow water movement Too acid Droughty Depth to bedrock	1.00 1.00 0.91 0.73 0.10

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
PmB:				
Bush River-----	Very limited		Very limited	
	Slow water	1.00	Depth to	1.00
	movement		saturated zone	
	Depth to	1.00	Slow water	1.00
	saturated zone		movement	
	Too acid	0.11	Too acid	0.42
	Droughty	0.01	Droughty	0.01
Helena-----	Very limited		Very limited	
	Slow water	1.00	Depth to	1.00
	movement		saturated zone	
	Depth to	1.00	Slow water	1.00
	saturated zone		movement	
	Too acid	0.62	Too acid	1.00
PmC:				
Prosperity-----	Very limited		Very limited	
	Slow water	1.00	Depth to	1.00
	movement		saturated zone	
	Depth to	1.00	Slow water	1.00
	saturated zone		movement	
	Droughty	0.73	Too acid	0.91
	Too acid	0.32	Droughty	0.73
	Depth to bedrock	0.10	Depth to bedrock	0.10
Bush River-----	Very limited		Very limited	
	Slow water	1.00	Depth to	1.00
	movement		saturated zone	
	Depth to	1.00	Slow water	1.00
	saturated zone		movement	
	Too acid	0.11	Too acid	0.42
	Droughty	0.01	Droughty	0.01
	Slope	0.01	Slope	0.01
Helena-----	Very limited		Very limited	
	Slow water	1.00	Depth to	1.00
	movement		saturated zone	
	Depth to	1.00	Slow water	1.00
	saturated zone		movement	
	Too acid	0.62	Too acid	1.00
	Slope	0.01	Slope	0.01
RnC2:				
Rion-----	Somewhat limited		Somewhat limited	
	Too acid	0.11	Too acid	0.42
	Slope	0.01	Slope	0.01
RnD2:				
Rion-----	Somewhat limited		Somewhat limited	
	Slope	0.63	Slope	0.63
	Too acid	0.11	Too acid	0.42
RnE2:				
Rion-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Too acid	0.11	Too acid	0.42

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
RnF2: Rion-----	Very limited Slope Too acid	1.00 0.11	Very limited Slope Too acid	1.00 0.42
SaB: Santuc-----	Somewhat limited Depth to saturated zone Too acid Slow water movement	0.98 0.94 0.30	Very limited Too acid Depth to saturated zone Slow water movement	1.00 0.98 0.22
SaC: Santuc-----	Somewhat limited Depth to saturated zone Too acid Slow water movement Slope	0.98 0.94 0.30 0.01	Very limited Too acid Depth to saturated zone Slow water movement Slope	1.00 0.98 0.22 0.01
SeB: Sedgefield-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 1.00 0.01	Very limited Depth to saturated zone Slow water movement Too acid	1.00 1.00 0.03
ShA: Shellbluff-----	Very limited Flooding Depth to saturated zone Too acid	1.00 0.75 0.62	Very limited Flooding Too acid Depth to saturated zone	1.00 1.00 0.75
ToA: Toccoa-----	Very limited Flooding Too acid Depth to saturated zone	1.00 0.11 0.09	Very limited Flooding Too acid Depth to saturated zone	1.00 0.42 0.09
UcC2: Urban land-----	Not rated		Not rated	
Cecil-----	Somewhat limited Low adsorption Too acid	0.32 0.32	Somewhat limited Too acid Low adsorption	0.91 0.11
UsC: Urban land-----	Not rated		Not rated	
Cecil-----	Somewhat limited Low adsorption Too acid	0.32 0.32	Somewhat limited Too acid Low adsorption	0.91 0.11

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
UsC: Santuc-----	Somewhat limited Depth to saturated zone	0.98	Very limited Too acid	1.00
	Too acid	0.94	Depth to saturated zone	0.98
	Slow water movement	0.30	Slow water movement	0.22
WnB: Winnsboro-----	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
	Too acid	0.37	Too acid	0.96
	Droughty	0.32	Droughty	0.32
WoA: Worsham-----	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Runoff	0.40	Too acid	0.03
	Too acid	0.01		
WwD2: Wynott-----	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
	Droughty	0.92	Droughty	0.92
	Slope	0.63	Slope	0.63
	Depth to bedrock	0.54	Depth to bedrock	0.54
	Too acid	0.11	Too acid	0.42
Wilkes-----	Very limited Droughty	1.00	Very limited Droughty	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slope	0.63	Slope	0.63
	Slow water movement	0.30	Too acid	0.42
	Too acid	0.11	Slow water movement	0.22
WwE2: Wynott-----	Very limited Slope	1.00	Very limited Slope	1.00
	Slow water movement	1.00	Slow water movement	1.00
	Droughty	0.92	Droughty	0.92
	Depth to bedrock	0.54	Depth to bedrock	0.54
	Too acid	0.11	Too acid	0.42
Wilkes-----	Very limited Slope	1.00	Very limited Slope	1.00
	Droughty	1.00	Droughty	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slow water movement	0.30	Too acid	0.42
	Too acid	0.11	Slow water movement	0.22

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WyB2: Wynott-----	Very limited Slow water movement Droughty Depth to bedrock Too acid	1.00 0.92 0.54 0.11	Very limited Slow water movement Droughty Depth to bedrock Too acid	1.00 0.92 0.54 0.42
Winnsboro-----	Very limited Slow water movement Too acid Droughty	1.00 0.37 0.32	Very limited Slow water movement Too acid Droughty	1.00 0.96 0.32
WyC2: Wynott-----	Very limited Slow water movement Droughty Depth to bedrock Too acid Slope	1.00 0.92 0.54 0.11 0.01	Very limited Slow water movement Droughty Depth to bedrock Too acid Slope	1.00 0.92 0.54 0.42 0.01
Winnsboro-----	Very limited Slow water movement Too acid Droughty Slope	1.00 0.37 0.32 0.01	Very limited Slow water movement Too acid Droughty Slope	1.00 0.96 0.32 0.01
1B: Appling-----	Very limited Filtering capacity Too acid Low adsorption	0.99 0.50 0.20	Very limited Filtering capacity Too acid Low adsorption	0.99 0.99 0.53
1C: Appling-----	Very limited Filtering capacity Too acid Slope Low adsorption	0.99 0.50 0.37 0.19	Very limited Filtering capacity Too acid Low adsorption Slope	0.99 0.99 0.48 0.37
2B2: Appling-----	Somewhat limited Too acid Low adsorption	0.50 0.19	Very limited Too acid Low adsorption	0.99 0.52
2C2: Appling-----	Somewhat limited Too acid Slope Low adsorption	0.50 0.37 0.19	Very limited Too acid Low adsorption Slope	0.99 0.52 0.37

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
3B: Buncombe-----	Very limited Filtering capacity Leaching Droughty Too acid	0.99 0.45 0.35 0.11	Very limited Filtering capacity Too acid Flooding Droughty	0.99 0.42 0.40 0.35
5A: Cartecay-----	Very limited Depth to saturated zone Filtering capacity Flooding Too acid	1.00 0.99 0.60 0.11	Very limited Depth to saturated zone Flooding Filtering capacity Too acid	1.00 1.00 0.99 0.42
7B: Cataula-----	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption	1.00 0.50 0.37 0.18	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption	1.00 0.99 0.37 0.15
8B2: Cataula-----	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption	1.00 0.50 0.37 0.21	Very limited Slow water movement Too acid Low adsorption Depth to saturated zone	1.00 0.99 0.55 0.37
8C2: Cataula-----	Very limited Slow water movement Too acid Depth to saturated zone Slope Low adsorption	1.00 0.50 0.37 0.37 0.21	Very limited Slow water movement Too acid Low adsorption Depth to saturated zone Slope	1.00 0.99 0.55 0.37 0.37
10B: Cecil-----	Somewhat limited Too acid Low adsorption	0.32 0.26	Somewhat limited Too acid Low adsorption	0.91 0.07
10C: Cecil-----	Somewhat limited Slope Too acid Low adsorption	0.37 0.32 0.25	Somewhat limited Too acid Slope Low adsorption	0.91 0.37 0.06

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
11B2: Cecil-----	Somewhat limited Low adsorption Too acid	0.45 0.37	Somewhat limited Too acid Low adsorption	0.96 0.58
11C2: Cecil-----	Somewhat limited Low adsorption Too acid Slope	0.45 0.37 0.37	Somewhat limited Too acid Low adsorption Slope	0.96 0.60 0.37
11D2: Cecil-----	Very limited Slope Low adsorption Too acid	1.00 0.45 0.37	Very limited Slope Too acid Low adsorption	1.00 0.96 0.60
12B3: Cecil-----	Somewhat limited Too acid Low adsorption	0.50 0.39	Very limited Too acid Low adsorption	0.99 0.46
12C3: Cecil-----	Somewhat limited Too acid Low adsorption Slope	0.50 0.38 0.37	Very limited Too acid Low adsorption Slope	0.99 0.44 0.37
13A: Chenneby-----	Very limited Depth to saturated zone Flooding Too acid	1.00 0.60 0.27	Very limited Depth to saturated zone Flooding Too acid	1.00 1.00 0.85
32B2: Hiwassee-----	Somewhat limited Too acid Low adsorption	0.11 0.04	Somewhat limited Too acid	0.42
32C2: Hiwassee-----	Somewhat limited Slope Too acid Low adsorption	0.37 0.11 0.04	Somewhat limited Too acid Slope	0.42 0.37
40B: Mecklenburg-----	Very limited Slow water movement Too acid	1.00 0.11	Very limited Slow water movement Too acid	1.00 0.42
41B2: Mecklenburg-----	Very limited Slow water movement Too acid	1.00 0.11	Very limited Slow water movement Too acid	1.00 0.42

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
41C2: Mecklenburg-----	Very limited Slow water movement Slope Too acid	1.00 0.37 0.11	Very limited Slow water movement Too acid Slope	1.00 0.42 0.37
41D2: Mecklenburg-----	Very limited Slope Slow water movement Too acid	1.00 1.00 0.11	Very limited Slope Slow water movement Too acid	1.00 1.00 0.42
44C2: Pacolet-----	Somewhat limited Slope Too acid	0.37 0.32	Somewhat limited Too acid Slope Low adsorption	0.91 0.37 0.28
44D2: Pacolet-----	Very limited Slope Too acid	1.00 0.32	Very limited Slope Too acid Low adsorption	1.00 0.91 0.29
44E2: Pacolet-----	Very limited Slope Too acid	1.00 0.32	Very limited Slope Too acid Low adsorption	1.00 0.91 0.29
45D3: Pacolet-----	Very limited Slope Too acid	1.00 0.32	Very limited Slope Too acid Low adsorption	1.00 0.91 0.27
45E3: Pacolet-----	Very limited Slope Too acid	1.00 0.32	Very limited Slope Too acid Low adsorption	1.00 0.91 0.27
47C2: Rion-----	Somewhat limited Slope Too acid	0.37 0.11	Somewhat limited Too acid Slope	0.42 0.37
47D2: Rion-----	Very limited Slope Too acid	1.00 0.11	Very limited Slope Too acid	1.00 0.42
47E2: Rion-----	Very limited Slope Too acid	1.00 0.11	Very limited Slope Too acid	1.00 0.42

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
48D3: Rion-----	Very limited Slope Too acid	1.00 0.11	Very limited Slope Too acid	1.00 0.42
28B: Santuc-----	Somewhat limited Depth to saturated zone Too acid Slow water movement	0.98 0.94 0.30	Very limited Too acid Depth to saturated zone Slow water movement	1.00 0.98 0.22
28C: Santuc-----	Somewhat limited Depth to saturated zone Too acid Slope Slow water movement	0.98 0.94 0.37 0.30	Very limited Too acid Depth to saturated zone Slope Slow water movement	1.00 0.98 0.37 0.22
15A: Shellbluff-----	Somewhat limited Depth to saturated zone Too acid Flooding	0.75 0.62 0.60	Very limited Flooding Too acid Depth to saturated zone	1.00 1.00 0.75
49A: Toccoa-----	Somewhat limited Flooding Too acid Depth to saturated zone	0.60 0.11 0.09	Very limited Flooding Too acid Depth to saturated zone	1.00 0.42 0.09
50E: Udorthents-----	Very limited Slope Too acid	1.00 0.22	Very limited Slope Too acid	1.00 0.77
60C2: Wilkes-----	Very limited Droughty Depth to bedrock Slope Slow water movement Too acid	1.00 1.00 0.37 0.30 0.11	Very limited Droughty Depth to bedrock Too acid Slope Slow water movement	1.00 1.00 0.42 0.37 0.22
60D2: Wilkes-----	Very limited Slope Droughty Depth to bedrock Slow water movement Too acid	1.00 1.00 1.00 0.30 0.11	Very limited Slope Droughty Depth to bedrock Too acid Slow water movement	1.00 1.00 1.00 0.42 0.22

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part I--Continued

Map symbol and soil name	Application of manure and food- processing waste		Application of sewage sludge	
	Rating class and limiting features	Value	Rating class and limiting features	Value
22B: Winnsboro-----	Very limited Slow water movement Too acid Droughty	1.00 0.32 0.26	Very limited Slow water movement Too acid Droughty	1.00 0.91 0.26
22C: Winnsboro-----	Very limited Slow water movement Slope Too acid Droughty	1.00 0.37 0.32 0.26	Very limited Slow water movement Too acid Slope Droughty	1.00 0.91 0.37 0.26
23B2: Winnsboro-----	Very limited Slow water movement Too acid	1.00 0.32	Very limited Slow water movement Too acid	1.00 0.91
23C2: Winnsboro-----	Very limited Slow water movement Slope Too acid	1.00 0.37 0.32	Very limited Slow water movement Too acid Slope	1.00 0.91 0.37
23D2: Winnsboro-----	Very limited Slope Slow water movement Too acid	1.00 1.00 0.32	Very limited Slope Slow water movement Too acid	1.00 1.00 0.91
24D3: Winnsboro-----	Very limited Slope Slow water movement Too acid	1.00 1.00 0.32	Very limited Slope Slow water movement Too acid	1.00 1.00 0.91

Soil Survey of Newberry County, South Carolina

Table 7.--Agricultural Waste Management, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Seepage	1.00
	Too acid	0.91	Depth to saturated zone	1.00
	Too steep for surface application	0.08	Too acid	0.91
CaB: Callison-----	Somewhat limited		Very limited	
	Depth to saturated zone	0.98	Seepage	1.00
	Too acid	0.91	Depth to bedrock	1.00
	Slow water movement	0.22	Depth to saturated zone	0.98
	Too steep for surface application	0.08	Too acid	0.91
	Depth to bedrock	0.03		
CaC: Callison-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Depth to saturated zone	0.98	Depth to bedrock	1.00
	Too acid	0.91	Depth to saturated zone	0.98
	Slow water movement	0.22	Too acid	0.91
	Too steep for sprinkler application	0.10	Too steep for surface application	0.22
CcA: Cartecay-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	1.00	Seepage	1.00
	Filtering capacity	0.99	Depth to saturated zone	1.00
	Too acid	0.42	Too acid	0.42

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CdB2: Cataula-----	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption Too steep for surface application	1.00 0.99 0.68 0.10 0.08	Very limited Seepage Too acid Depth to saturated zone Low adsorption	1.00 0.99 0.68 0.10
CdC2: Cataula-----	Very limited Slow water movement Too steep for surface application Too acid Depth to saturated zone Low adsorption	1.00 1.00 0.99 0.68 0.10	Very limited Seepage Too acid Depth to saturated zone Too steep for surface application Low adsorption	1.00 0.99 0.68 0.22 0.10
CeB: Cecil-----	Somewhat limited Too acid Low adsorption Too steep for surface application	0.91 0.32 0.08	Very limited Seepage Too acid Low adsorption	1.00 0.91 0.32
CfB2: Cecil-----	Somewhat limited Too acid Low adsorption Too steep for surface application	0.96 0.50 0.08	Very limited Seepage Too acid Low adsorption	1.00 0.96 0.50
CfC2: Cecil-----	Very limited Too steep for surface application Too acid Low adsorption Too steep for sprinkler application	1.00 0.96 0.50 0.10	Very limited Seepage Too acid Low adsorption Too steep for surface application	1.00 0.96 0.50 0.22

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CfD2: Cecil-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application Low adsorption	1.00 0.96 0.85 0.50	Very limited Seepage Too steep for surface application Too acid Low adsorption	1.00 1.00 0.96 0.50
CnA: Chenneby-----	Very limited Depth to saturated zone Flooding Too acid	1.00 1.00 0.85	Very limited Flooding Depth to saturated zone Seepage Too acid	1.00 1.00 1.00 0.85
CyA: Chenneby-----	Very limited Ponding Depth to saturated zone Too acid	1.00 1.00 0.85	Very limited Ponding Depth to saturated zone Seepage Too acid	1.00 1.00 1.00 0.85
DaB2: Davidson-----	Somewhat limited Too acid Low adsorption Too steep for surface application	0.77 0.23 0.08	Very limited Seepage Too acid Low adsorption	1.00 0.77 0.23
GaB2: Georgeville-----	Somewhat limited Too acid Too steep for surface application	0.42 0.08	Very limited Seepage Too acid	1.00 0.42
GaC2: Georgeville-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application	1.00 0.42 0.10	Very limited Seepage Too acid Too steep for surface application	1.00 0.42 0.22

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
GnC2: Gundy-----	Very limited Too steep for surface application Too acid Droughty Too steep for sprinkler application	1.00 0.42 0.16 0.10	Very limited Seepage Too acid Depth to bedrock Too steep for surface application	1.00 0.42 0.26 0.22
GnD2: Gundy-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid Droughty	1.00 0.85 0.42 0.16	Very limited Seepage Too steep for surface application Too acid Depth to bedrock	1.00 1.00 0.42 0.26
GnE2: Gundy-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid Droughty	1.00 1.00 0.42 0.16	Very limited Too steep for surface application Seepage Too acid Depth to bedrock	1.00 1.00 0.42 0.26
HaB: Hard Labor-----	Very limited Slow water movement Too acid Too steep for surface application Depth to saturated zone Low adsorption	1.00 0.42 0.08 0.02 0.01	Very limited Seepage Too acid Depth to saturated zone Low adsorption	1.00 0.42 0.02 0.01
HaC: Hard Labor-----	Very limited Slow water movement Too steep for surface application Too acid Too steep for sprinkler application Depth to saturated zone	1.00 1.00 0.42 0.10 0.02	Very limited Seepage Too acid Too steep for surface application Depth to saturated zone Low adsorption	1.00 0.42 0.22 0.02 0.01

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
HeB: Helena-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Too acid	1.00
	Too acid	1.00		
	Too steep for	0.08		
	surface			
	application			
HeC: Helena-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Too acid	1.00
	Too acid	1.00	Too steep for	0.22
	Too steep for	1.00	surface	
	application		application	
	Too steep for	0.10		
	sprinkler			
	application			
HwB2: Hiwassee-----	Somewhat limited		Very limited	
	Too acid	0.42	Seepage	1.00
	Too steep for	0.08	Too acid	0.42
	surface			
	application			
HwD2: Hiwassee-----	Very limited		Very limited	
	Too steep for	1.00	Seepage	1.00
	surface		Too steep for	0.78
	application		surface	
	Too acid	0.42	application	
	Too steep for	0.40	Too acid	0.42
	sprinkler			
	application			
McB: Mecklenburg-----	Very limited		Very limited	
	Slow water	1.00	Seepage	1.00
	movement		Too acid	0.42
	Too acid	0.42		
	Too steep for	0.08		
	surface			
	application			
MeB2: Mecklenburg-----	Very limited		Very limited	
	Slow water	1.00	Seepage	1.00
	movement		Too acid	0.42
	Too acid	0.42		
	Too steep for	0.08		
	surface			
	application			

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
MeC2: Mecklenburg-----	Very limited Slow water movement Too steep for surface application Too acid Too steep for sprinkler application	1.00 1.00 0.42 0.10	Very limited Seepage Too acid Too steep for surface application	1.00 0.42 0.22
PaD2: Pacolet-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application	1.00 0.91 0.90	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.91
PaE2, PaF2: Pacolet-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.91	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.91
PcC3: Pacolet-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application Low adsorption	1.00 0.91 0.10 0.01	Very limited Seepage Too acid Too steep for surface application Low adsorption	1.00 0.91 0.22 0.01
PmB: Prosperity-----	Very limited Depth to saturated zone Slow water movement Too acid Droughty Depth to bedrock	1.00 1.00 0.91 0.73 0.10	Very limited Seepage Depth to saturated zone Depth to bedrock Too acid	1.00 1.00 1.00 0.91 1

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
PmB:				
Bush River-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Depth to bedrock	0.77
	Too acid	0.42	Too acid	0.42
	Too steep for	0.08		
	surface			
	application			
	Droughty	0.01		
Helena-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Too acid	1.00
	Too acid	1.00		
	Too steep for	0.08		
	surface			
	application			
PmC:				
Prosperity-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Depth to bedrock	1.00
	Too steep for	1.00	Too acid	0.91
	surface		Too steep for	0.22
	application		surface	
	Too acid	0.91	application	
	Droughty	0.73		
Bush River-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Depth to bedrock	0.77
	Too steep for	1.00	Too acid	0.42
	surface		Too steep for	0.22
	application		surface	
	Too acid	0.42	application	
	Too steep for	0.10		
	sprinkler			
	application			
Helena-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Too acid	1.00
	Too acid	1.00	Too steep for	0.22
	Too steep for	1.00	surface	
	surface		application	
	application			
	Too steep for	0.10		
	sprinkler			
	application			

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
RnC2: Rion-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too acid	0.42	Too acid	0.42
	Too steep for sprinkler application	0.10	Too steep for surface application	0.22
RnD2: Rion-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	0.78	Too steep for surface application	1.00
	Too acid	0.42	Too acid	0.42
RnE2, RnF2: Rion-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Too steep for surface application	1.00
	Too acid	0.42	Too acid	0.42
SaB: Santuc-----	Very limited		Very limited	
	Too acid	1.00	Seepage	1.00
	Depth to saturated zone	0.98	Too acid	1.00
	Slow water movement	0.22	Depth to saturated zone	0.98
	Too steep for surface application	0.08		
SaC: Santuc-----	Very limited		Very limited	
	Too acid	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	1.00
	Depth to saturated zone	0.98	Depth to saturated zone	0.98
	Slow water movement	0.22	Too steep for surface application	0.22
	Too steep for sprinkler application	0.10		

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
SeB: Sedgefield-----	Very limited		Very limited	
	Depth to	1.00	Seepage	1.00
	saturated zone		Depth to	1.00
	Slow water	1.00	saturated zone	
	movement		Too acid	0.03
	Too acid	0.03		
ShA: Shellbluff-----	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Too acid	1.00	Seepage	1.00
	Depth to	0.75	Too acid	1.00
	saturated zone		Depth to	0.75
			saturated zone	
ToA: Toccoa-----	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Too acid	0.42	Seepage	1.00
	Depth to	0.09	Too acid	0.42
	saturated zone		Depth to	0.09
			saturated zone	
UcC2: Urban land-----	Not rated		Not rated	
Cecil-----	Somewhat limited		Very limited	
	Too acid	0.91	Seepage	1.00
	Too steep for	0.68	Too acid	0.91
	surface		Low adsorption	0.32
	application			
	Low adsorption	0.32		
UsC: Urban land-----	Not rated		Not rated	
Cecil-----	Somewhat limited		Very limited	
	Too acid	0.91	Seepage	1.00
	Low adsorption	0.32	Too acid	0.91
	Too steep for	0.08	Low adsorption	0.32
	surface			
	application			
Santuc-----	Very limited		Very limited	
	Too acid	1.00	Seepage	1.00
	Depth to	0.98	Too acid	1.00
	saturated zone		Depth to	0.98
	Slow water	0.22	saturated zone	
	movement			
	Too steep for	0.08		
	surface			
	application			

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WnB: Winnsboro-----	Very limited Slow water movement Too acid Droughty Too steep for surface application	1.00 0.96 0.32 0.08	Very limited Seepage Depth to bedrock Too acid	1.00 0.99 0.96
WoA: Worsham-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 1.00 0.03	Very limited Depth to saturated zone Seepage Too acid	1.00 1.00 0.03
WwD2: Wynott-----	Very limited Too steep for surface application Slow water movement Droughty Too steep for sprinkler application Depth to bedrock	1.00 1.00 0.92 0.78 0.54	Very limited Seepage Depth to bedrock Too steep for surface application Too acid	1.00 1.00 1.00 0.42
Wilkes-----	Very limited Too steep for surface application Droughty Depth to bedrock Too steep for sprinkler application Too acid	1.00 1.00 1.00 0.78 0.42	Very limited Seepage Depth to bedrock Too steep for surface application Too acid	1.00 1.00 1.00 0.42
WwE2: Wynott-----	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Droughty Depth to bedrock	1.00 1.00 1.00 0.92 0.54	Very limited Seepage Too steep for surface application Depth to bedrock Too acid	1.00 1.00 0 1.00 0.42

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WwE2: Wilkes-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Depth to bedrock	1.00
	Droughty	1.00	Too steep for surface application	1.00
	Depth to bedrock	1.00	Too acid	0.42
	Too acid	0.42		
WyB2: Wynott-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Droughty	0.92	Depth to bedrock	1.00
	Depth to bedrock	0.54	Too acid	0.42
	Too acid	0.42		
	Too steep for surface application	0.08		
Winnsboro-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too acid	0.96	Too acid	0.96
	Droughty	0.32	Depth to bedrock	0.26
	Too steep for surface application	0.08		6
WyC2: Wynott-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too steep for surface application	1.00	Depth to bedrock	1.00
	Droughty	0.92	Too acid	0.42
	Depth to bedrock	0.54	Too steep for surface application	0.22
	Too acid	0.42		
Winnsboro-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too acid	0.96
	Too acid	0.96	Depth to bedrock	0.26
	Droughty	0.32	Too steep for surface application	0.22
	Too steep for sprinkler application	0.10		

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
1B: Appling-----	Very limited Filtering capacity Too acid Low adsorption Too steep for surface application	0.99 0.99 0.20 0.08	Very limited Seepage Too acid Low adsorption	1.00 0.99 0.20
1C: Appling-----	Very limited Too steep for surface application Filtering capacity Too acid Too steep for sprinkler application Low adsorption	1.00 0.99 0.99 0.60 0.19	Very limited Seepage Too acid Too steep for surface application Low adsorption	1.00 0.99 0.94 0.19
2B2: Appling-----	Very limited Too acid Low adsorption Too steep for surface application	0.99 0.19 0.08	Very limited Seepage Too acid Low adsorption	1.00 0.99 0.19
2C2: Appling-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application Low adsorption	1.00 0.99 0.60 0.19	Very limited Seepage Too acid Too steep for surface application Low adsorption	1.00 0.99 0.94 0.19
3B: Buncombe-----	Very limited Filtering capacity Too acid Droughty	0.99 0.42 0.35	Very limited Seepage Too acid Flooding	1.00 0.42 0.40
5A: Cartecay-----	Very limited Depth to saturated zone Filtering capacity Flooding Too acid	1.00 0.99 0.60 0.42	Very limited Flooding Seepage Depth to saturated zone Too acid	1.00 1.00 1.00 0.42

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
7B: Cataula-----	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption Too steep for surface application	1.00 0.99 0.37 0.18 0.08	Very limited Seepage Too acid Depth to saturated zone Low adsorption	1.00 0.99 0.37 0.18
8B2: Cataula-----	Very limited Slow water movement Too acid Depth to saturated zone Low adsorption Too steep for surface application	1.00 0.99 0.37 0.21 0.08	Very limited Seepage Too acid Depth to saturated zone Low adsorption	1.00 0.99 0.37 0.21
8C2: Cataula-----	Very limited Slow water movement Too steep for surface application Too acid Too steep for sprinkler application Depth to saturated zone	1.00 1.00 0.99 0.60 0.37	Very limited Seepage Too acid Too steep for surface application Depth to saturated zone Low adsorption	1.00 0.99 0.9 0.37 0.21
10B: Cecil-----	Somewhat limited Too acid Low adsorption Too steep for surface application	0.91 0.26 0.08	Very limited Seepage Too acid Low adsorption	1.00 0.91 0.26
10C: Cecil-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application Low adsorption	1.00 0.91 0.60 0.25	Very limited Seepage Too steep for surface application Too acid Low adsorption	1.00 0.94 0.91 0.25

Soil Survey of Newberry County, South Carolina

Table 7.--Agricultural Waste Management, Part II--Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
11B2: Cecil-----	Somewhat limited Too acid Low adsorption Too steep for surface application	 0.96 0.45 0.08	Very limited Seepage Too acid Low adsorption	 1.00 0.96 0.45
11C2: Cecil-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application Low adsorption	 1.00 0.96 0.60 0.45	Very limited Seepage Too acid Too steep for surface application Low adsorption	 1.00 0.96 0.94 0.45
11D2: Cecil-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid Low adsorption	 1.00 1.00 0.96 0.45	Very limited Seepage Too steep for surface application Too acid Low adsorption	 1.00 1.00 0.96 0.45
12B3: Cecil-----	Very limited Too acid Low adsorption Too steep for surface application	 0.99 0.39 0.08	Very limited Seepage Too acid Low adsorption	 1.00 0.99 0.39
12C3: Cecil-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application Low adsorption	 1.00 0.99 0.60 0.38	Very limited Seepage Too acid Too steep for surface application Low adsorption	 1.00 0.99 0.94 0.38
13A: Chenneby-----	Very limited Depth to saturated zone Too acid Flooding	 1.00 0.85 0.60	Very limited Flooding Depth to saturated zone Seepage Too acid	 1.00 1.00 1.00 0.85

Soil Survey of Newberry County, South Carolina

Table 7.-Agricultural Waste Management, Part II-Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
32B2: Hiwassee-----	Somewhat limited		Very limited	
	Too acid	0.42	Seepage	1.00
	Too steep for surface application	0.08	Too acid	0.42
	Low adsorption	0.04	Low adsorption	0.04
32C2: Hiwassee-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	0.60	Too steep for surface application	0.94
	Too acid	0.42	Too acid	0.42
	Low adsorption	0.04	Low adsorption	0.04
40B: Mecklenburg-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too acid	0.42	Too acid	0.42
	Too steep for surface application	0.08		
41B2: Mecklenburg-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too acid	0.42	Too acid	0.42
	Too steep for surface application	0.08		
41C2: Mecklenburg-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.94
	Too steep for sprinkler application	0.60	Too acid	0.42
	Too acid	0.42		

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
41D2: Mecklenburg-----	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Too acid	1.00 1.00 1.00 0.42	Very limited Too steep for surface application Seepage Too acid	1.00 1.00 0.42
44C2: Pacolet-----	Very limited Too steep for surface application Too acid Too steep for sprinkler application	1.00 0.91 0.60	Very limited Seepage Too steep for surface application Too acid	1.00 0.94 0.91
44D2: Pacolet-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.91	Very limited Too steep for surface application Seepage Too acid	1.00 1.00 0.91
44E2: Pacolet-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.91	Very limited Too steep for surface application Seepage Too acid	1.00 1.00 0.91
45D3: Pacolet-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.91	Very limited Too steep for surface application Seepage Too acid	1.00 1.00 0.91

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
45E3: Pacolet-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.91	Very limited Too steep for surface application Seepage Too acid	1.00 1.00 0.91
47C2: Rion-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 0.60 0.42	Very limited Seepage Too steep for surface application Too acid	1.00 0.94 0.42
47D2: Rion-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.42	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.42
47E2: Rion-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.42	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.42
48D3: Rion-----	Very limited Too steep for surface application Too steep for sprinkler application Too acid	1.00 1.00 0.42	Very limited Too steep for surface application Seepage Too acid	1.00 1.00 0.42

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
28B: Santuc-----	Very limited		Very limited	
	Too acid	1.00	Seepage	1.00
	Depth to saturated zone	0.98	Too acid	1.00
	Slow water movement	0.22	Depth to saturated zone	0.98
	Too steep for surface application	0.08		
28C: Santuc-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too acid	1.00	Too acid	1.00
	Depth to saturated zone	0.98	Depth to saturated zone	0.98
	Too steep for sprinkler application	0.60	Too steep for surface application	0.94
	Slow water movement	0.22		
15A: Shellbluff-----	Very limited		Very limited	
	Too acid	1.00	Flooding	1.00
	Depth to saturated zone	0.75	Seepage	1.00
	Flooding	0.60	Too acid	1.00
			Depth to saturated zone	0.75
49A: Toccoa-----	Somewhat limited		Very limited	
	Flooding	0.60	Flooding	1.00
	Too acid	0.42	Seepage	1.00
	Depth to saturated zone	0.09	Too acid	0.42
			Depth to saturated zone	0.09
50E: Udorthents-----	Very limited		Very limited	
	Too steep for surface application	1.00	Too steep for surface application	1.00
	Too steep for sprinkler application	1.00	Seepage	0.99
	Too acid	0.77	Too acid	0.77

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
60C2: Wilkes-----	Very limited		Very limited	
	Droughty	1.00	Seepage	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too steep for surface application	1.00	Too steep for surface application	0.94
	Too steep for sprinkler application	0.60	Too acid	0.42
	Too acid	0.42		
60D2: Wilkes-----	Very limited		Very limited	
	Too steep for surface application	1.00	Seepage	1.00
	Too steep for sprinkler application	1.00	Depth to bedrock	1.00
	Droughty	1.00	Too steep for surface application	1.00
	Depth to bedrock	1.00	Too acid	0.42
	Too acid	0.42		
22B: Winnsboro-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too acid	0.91	Depth to bedrock	0.99
	Droughty	0.26	Too acid	0.91
	Too steep for surface application	0.08		
22C: Winnsboro-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too steep for surface application	1.00	Depth to bedrock	0.99
	Too acid	0.91	Too steep for surface application	0.94
	Too steep for sprinkler application	0.60	Too acid	0.91
	Droughty	0.26		
23B2: Winnsboro-----	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Too acid	0.91	Too acid	0.91
	Too steep for surface application	0.08	Depth to bedrock	0.26

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Disposal of wastewater by irrigation		Overland flow of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
23C2: Winnsboro-----	Very limited Slow water movement Too steep for surface application Too acid Too steep for sprinkler application	1.00 1.00 0.91 0.60	Very limited Seepage Too steep for surface application Too acid Depth to bedrock	1.00 0.94 0.91 0.26
23D2: Winnsboro-----	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Too acid	1.00 1.00 1.00 0.91	Very limited Too steep for surface application Seepage Too acid Depth to bedrock	1.00 1.00 0.91 0.26
24D3: Winnsboro-----	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Too acid	1.00 1.00 1.00 0.91	Very limited Too steep for surface application Seepage Too acid Depth to bedrock	1.00 1.00 0.91 0.26

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
	Slow water movement	1.00	Too acid Too steep for surface application	0.91 0.08
CaB: Callison-----	Very limited Slow water movement	1.00	Very limited Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to saturated zone	0.98
	Depth to saturated zone	0.98	Too acid	0.91
			Slow water movement	0.15
			Too steep for surface application	0.08
CaC: Callison-----	Very limited Slow water movement	1.00	Very limited Depth to bedrock	1.00
	Depth to bedrock	1.00	Too steep for surface application	1.00
	Slope	1.00	Depth to saturated zone	0.98
	Depth to saturated zone	0.98	Too acid	0.91
			Too steep for sprinkler irrigation	0.22
CcA: Cartecay-----	Very limited Flooding	1.00	Very limited Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Flooding	1.00
	Slow water movement	0.32	Filtering capacity	0.99
			Too acid	0.42
CdB2: Cataula-----	Very limited Slow water movement	1.00	Very limited Too acid	0.99
	Depth to saturated zone	0.68	Slow water movement	0.96
	Too acid	0.03	Depth to saturated zone	0.68
			Low adsorption	0.10
			Too steep for surface application	0.08

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CdC2: Cataula-----	Very limited Slow water movement	1.00	Very limited Too steep for surface application	1.00
	Slope	1.00	Too acid	0.99
	Depth to saturated zone	0.68	Slow water movement	0.96
			Depth to saturated zone	0.68
			Too steep for sprinkler irrigation	0.22
CeB: Cecil-----	Very limited Slow water movement	1.00	Somewhat limited Too acid	0.91
			Low adsorption	0.32
			Too steep for surface application	0.08
CfB2: Cecil-----	Very limited Slow water movement	1.00	Somewhat limited Too acid	0.96
			Low adsorption	0.50
			Too steep for surface application	0.08
CfC2: Cecil-----	Very limited Slow water movement	1.00	Very limited Too steep for surface application	1.00
	Slope	1.00	Too acid	0.96
			Low adsorption	0.50
			Too steep for sprinkler irrigation	0.22
CfD2: Cecil-----	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
	Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
			Too acid	0.96
			Low adsorption	0.50
CnA: Chenneby-----	Very limited Flooding	1.00	Very limited Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Flooding	1.00
	Slow water movement	1.00	Too acid	0.85

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CyA: Chenneby-----	Very limited Ponding Depth to saturated zone Slow water movement	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too acid	1.00 1.00 0.85
DaB2: Davidson-----	Very limited Slow water movement	1.00	Somewhat limited Too acid Low adsorption Too steep for surface application	0.77 0.23 0.08
GaB2: Georgeville-----	Very limited Slow water movement	1.00	Somewhat limited Too acid Too steep for surface application	0.42 0.08
GaC2: Georgeville-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too acid Too steep for sprinkler irrigation	1.00 0.42 0.22
GnC2: Gundy-----	Very limited Depth to bedrock Slow water movement Slope	1.00 1.00 1.00	Very limited Too steep for surface application Too acid Depth to bedrock Too steep for sprinkler irrigation	1.00 0.42 0.26 0.22
GnD2: Gundy-----	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid Depth to bedrock	1.00 1.00 0.42 0.26

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
GnE2: Gundy-----	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid Depth to bedrock	1.00 1.00 0.42 0.26
HaB: Hard Labor-----	Very limited Slow water movement Depth to saturated zone	1.00 0.02	Somewhat limited Slow water movement Too acid Too steep for surface application Depth to saturated zone Low adsorption	0.94 0.42 0.08 0.02 0.01
HaC: Hard Labor-----	Very limited Slow water movement Slope Depth to saturated zone	1.00 1.00 0.02	Very limited Too steep for surface application Slow water movement Too acid Too steep for sprinkler irrigation Depth to saturated zone	1.00 0.94 0.42 0.22 0.02
HeB: Helena-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 1.00 0.03	Very limited Depth to saturated zone Too acid Slow water movement Too steep for surface application	1.00 1.00 0.94 0.08

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
HeC: Helena-----	Very limited Slow water movement Depth to saturated zone Slope Too acid	1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Too acid Too steep for surface application Slow water movement Too steep for sprinkler irrigation	1.00 1.00 1.00 0.94 0.22
HwB2: Hiwassee-----	Very limited Slow water movement	1.00	Somewhat limited Too acid Too steep for surface application	0.42 0.08
HwD2: Hiwassee-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 0.78 0.42
McB: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Slow water movement Too acid Too steep for surface application	0.94 0.42 0.08
MeB2: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Slow water movement Too acid Too steep for surface application	0.94 0.42 0.08
MeC2: Mecklenburg-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Slow water movement Too acid Too steep for sprinkler irrigation	1.00 0.94 0.42 0.22

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
PaD2: Pacolet-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.91
PaE2: Pacolet-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.91
PaF2: Pacolet-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.91
PcC3: Pacolet-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too acid Too steep for sprinkler irrigation Low adsorption	1.00 0.91 0.22 0.01
PmB: Prosperity-----	Very limited Slow water movement Depth to saturated zone Depth to bedrock Too acid	1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Depth to bedrock Slow water movement Too acid Too steep for surface application	1.00 1.00 0.94 0.91 0.08

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
PmB: Bush River-----	Very limited Slow water movement Depth to saturated zone Depth to bedrock Too acid	1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Slow water movement Depth to bedrock Too acid Too steep for surface application	1.00 0.94 0.77 0.42 0.08
Helena-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 1.00 0.03	Very limited Depth to saturated zone Too acid Slow water movement Too steep for surface application	1.00 1.00 0.94 0.08
PmC: Prosperity-----	Very limited Slow water movement Depth to saturated zone Depth to bedrock Slope Too acid	1.00 1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Depth to bedrock Too steep for surface application Slow water movement Too acid	1.00 1.00 1.00 0.94 0.91
Bush River-----	Very limited Slow water movement Depth to saturated zone Depth to bedrock Slope Too acid	1.00 1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Too steep for surface application Slow water movement Depth to bedrock Too acid	1.00 1.00 0.94 0.77 0.42
Helena-----	Very limited Slow water movement Depth to saturated zone Slope Too acid	1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Too acid Too steep for surface application Slow water movement Too steep for sprinkler irrigation	1.00 1.00 1.00 0.94 0.22

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
RnC2: Rion-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too acid Too steep for sprinkler irrigation	1.00 0.42 0.22
RnD2: Rion-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.42
RnE2: Rion-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.42
RnF2: Rion-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.42
SaB: Santuc-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 0.98 0.77	Very limited Too acid Depth to saturated zone Slow water movement Too steep for surface application	1.00 0.98 0.15 0.08

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
SaC: Santuc-----	Very limited Slow water movement	1.00	Very limited Too acid	1.00
	Slope	1.00	Too steep for surface	1.00
	Depth to saturated zone	0.98	application	
	Too acid	0.77	Depth to saturated zone	0.98
			Too steep for sprinkler irrigation	0.22
			Slow water movement	0.15
SeB: Sedgefield-----	Very limited Slow water movement	1.00	Very limited Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slow water movement	0.94
			Too acid	0.03
ShA: Shellbluff-----	Very limited Flooding	1.00	Very limited Flooding	1.00
	Depth to saturated zone	1.00	Too acid	1.00
	Slow water movement	1.00	Depth to saturated zone	0.75
ToA: Toccoa-----	Very limited Flooding	1.00	Very limited Flooding	1.00
	Depth to saturated zone	1.00	Too acid	0.42
	Slow water movement	0.32	Depth to saturated zone	0.09
UcC2: Urban land-----	Not rated		Not rated	
Cecil-----	Very limited Slow water movement	1.00	Somewhat limited Too acid	0.91
	Slope	0.50	Too steep for surface	0.68
			application	
			Low adsorption	0.32
UsC: Urban land-----	Not rated		Not rated	
Cecil-----	Very limited Slow water movement	1.00	Somewhat limited Too acid	0.91
			Low adsorption	0.32
			Too steep for surface	0.08
			application	

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
UsC: Santuc-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 0.98 0.77	Very limited Too acid Depth to saturated zone Slow water movement Too steep for surface application	1.00 0.98 0.15 0.08
WnB: Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 1.00	Somewhat limited Depth to bedrock Too acid Slow water movement Too steep for surface application	0.99 0.96 0.94 0.08
WoA: Worsham-----	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Slow water movement Too acid	1.00 1.00 0.03
WwD2: Wynott-----	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Too steep for surface application Depth to bedrock Too steep for sprinkler irrigation Slow water movement Too acid	1.00 1.00 1.00 0.94 0.42
Wilkes-----	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Too acid Slow water movement	1.00 1.00 1.00 0.42 0.15

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WwE2: Wynott-----	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Slow water movement Too acid	1.00 1.00 1.00 1.00 0.94 0.42
Wilkes-----	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Too acid Slow water movement	1.00 1.00 1.00 1.00 0.42 0.15
WyB2: Wynott-----	Very limited Slow water movement Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slow water movement Too acid Too steep for surface application	1.00 0.94 0.42 0.08
Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 1.00	Somewhat limited Too acid Slow water movement Depth to bedrock Too steep for surface application	0.96 0.94 0.26 0.08
WyC2: Wynott-----	Very limited Slow water movement Depth to bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Slow water movement Too acid Too steep for sprinkler irrigation	1.00 1.00 0.94 0.42 0.22

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WyC2: Winnsboro-----	Very limited Slow water movement Depth to bedrock Slope	1.00 1.00 1.00	Very limited Too steep for surface application Too acid Slow water movement Depth to bedrock Too steep for sprinkler irrigation	1.00 0.96 0.94 0.26 0.22
1B: Appling-----	Very limited Slow water movement Too acid	1.00 0.03	Very limited Filtering capacity Too acid Low adsorption Too steep for surface application	0.99 0.99 0.20 0.08
1C: Appling-----	Very limited Slow water movement Slope Too acid	1.00 1.00 0.03	Very limited Too steep for surface application Filtering capacity Too acid Too steep for sprinkler irrigation Low adsorption	1.00 0.99 0.99 0.94 0.19
2B2: Appling-----	Very limited Slow water movement Too acid	1.00 0.03	Very limited Too acid Low adsorption Too steep for surface application	0.99 0.19 0.08
2C2: Appling-----	Very limited Slow water movement Slope Too acid	1.00 1.00 0.03	Very limited Too steep for surface application Too acid Too steep for sprinkler irrigation Low adsorption	1.00 0.99 0.94 0.19
3B: Buncombe-----	Not limited		Very limited Filtering capacity Too acid	0.99 0.42

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
5A: Cartecay-----	Very limited Depth to saturated zone Flooding Slow water movement	1.00 0.60 0.32	Very limited Depth to saturated zone Filtering capacity Flooding Too acid	1.00 0.99 0.60 0.42
7B: Cataula-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 0.38 0.03	Very limited Too acid Slow water movement Depth to saturated zone Low adsorption Too steep for surface application	0.99 0.96 0.37 0.18 0.08
8B2: Cataula-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 0.38 0.03	Very limited Too acid Slow water movement Depth to saturated zone Low adsorption Too steep for surface application	0.99 0.96 0.37 0.21 0.08
8C2: Cataula-----	Very limited Slow water movement Slope Depth to saturated zone Too acid	1.00 1.00 0.38 0.03	Very limited Too steep for surface application Too acid Slow water movement Too steep for sprinkler irrigation Depth to saturated zone	1.00 0.99 0.96 0.94 0.37
10B: Cecil-----	Very limited Slow water movement	1.00	Somewhat limited Too acid Low adsorption Too steep for surface application	0.91 0.26 0.08

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
10C: Cecil-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid Low adsorption	1.00 0.94 0.91 0.25
11B2: Cecil-----	Very limited Slow water movement	1.00	Somewhat limited Too acid Low adsorption Too steep for surface application	0.96 0.45 0.08
11C2: Cecil-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too acid Too steep for sprinkler irrigation Low adsorption	1.00 0.96 0.94 0.45
11D2: Cecil-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid Low adsorption	1.00 1.00 0.96 0.45
12B3: Cecil-----	Very limited Slow water movement	1.00	Very limited Too acid Low adsorption Too steep for surface application	0.99 0.39 0.08
12C3: Cecil-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too acid Too steep for sprinkler irrigation Low adsorption	1.00 0.99 0.94 0.38

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
13A: Chenneby-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
	Slow water movement	1.00	Too acid	0.85
	Flooding	0.60	Flooding	0.60
32B2: Hiwassee-----	Very limited Slow water movement	1.00	Somewhat limited Too acid	0.42
			Too steep for surface application	0.08
			Low adsorption	0.04
32C2: Hiwassee-----	Very limited Slow water movement	1.00	Very limited Too steep for surface application	1.00
	Slope	1.00	Too steep for sprinkler irrigation	0.94
			Too acid	0.42
			Low adsorption	0.04
40B: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.94
			Too acid	0.42
			Too steep for surface application	0.08
41B2: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.94
			Too acid	0.42
			Too steep for surface application	0.08
41C2: Mecklenburg-----	Very limited Slow water movement	1.00	Very limited Too steep for surface application	1.00
	Slope	1.00	Too steep for sprinkler irrigation	0.94
			Slow water movement	0.94
			Too acid	0.42

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
41D2: Mecklenburg-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Too acid	1.00 1.00 0.94 0.42
44C2: Pacolet-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 0.94 0.91
44D2: Pacolet-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.91
44E2: Pacolet-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.91
45D3: Pacolet-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.91

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
45E3: Pacolet-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.91
47C2: Rion-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 0.94 0.42
47D2: Rion-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.42
47E2: Rion-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.42
48D3: Rion-----	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Too acid	1.00 1.00 0.42
28B: Santuc-----	Very limited Slow water movement Depth to saturated zone Too acid	1.00 0.98 0.77	Very limited Too acid Depth to saturated zone Slow water movement Too steep for surface application	1.00 0.98 0.15 0.08

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
28C: Santuc-----	Very limited Slow water movement	1.00	Very limited Too steep for surface application	1.00
	Slope	1.00	Too acid	1.00
	Depth to saturated zone	0.98	Depth to saturated zone	0.98
	Too acid	0.77	Too steep for sprinkler irrigation	0.94
			Slow water movement	0.15
15A: Shellbluff-----	Very limited Depth to saturated zone	1.00	Very limited Too acid	1.00
	Slow water movement	1.00	Depth to saturated zone	0.75
	Flooding	0.60	Flooding	0.60
49A: Toccoa-----	Very limited Depth to saturated zone	1.00	Somewhat limited Flooding	0.60
	Flooding	0.60	Too acid	0.42
	Slow water movement	0.32	Depth to saturated zone	0.09
50E: Udorthents-----	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
	Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
			Too acid	0.77
60C2: Wilkes-----	Very limited Slow water movement	1.00	Very limited Depth to bedrock	1.00
	Depth to bedrock	1.00	Too steep for surface application	1.00
	Slope	1.00	Too steep for sprinkler irrigation	0.94
			Too acid	0.42
			Slow water movement	0.15

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
60D2: Wilkes-----	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Too acid Slow water movement	1.00 1.00 1.00 0.42 0.15
22B: Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 1.00	Somewhat limited Depth to bedrock Slow water movement Too acid Too steep for surface application	0.99 0.94 0.91 0.08
22C: Winnsboro-----	Very limited Slow water movement Depth to bedrock Slope	1.00 1.00 1.00	Very limited Too steep for surface application Depth to bedrock Too steep for sprinkler irrigation Slow water movement Too acid	1.00 0.99 0.94 0.94 0.91
23B2: Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 1.00	Somewhat limited Slow water movement Too acid Depth to bedrock Too steep for surface application	0.94 0.91 0.26 0.08
23C2: Winnsboro-----	Very limited Slow water movement Depth to bedrock Slope	1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Too acid Depth to bedrock	1.00 0.94 0.94 0.91 0.26

Soil Survey of Newberry County, South Carolina

Table 7.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
	Rating class and limiting features	Value	Rating class and limiting features	Value
23D2: Winnsboro-----	Very limited		Very limited	
	Slope	1.00	Too steep for	1.00
	Slow water	1.00	surface	
	movement		application	
	Depth to bedrock	1.00	Too steep for	1.00
			sprinkler	
			irrigation	
			Slow water	0.94
			movement	
			Too acid	0.91
			Depth to bedrock	0.26
24D3: Winnsboro-----	Very limited		Very limited	
	Slope	1.00	Too steep for	1.00
	Slow water	1.00	surface	
	movement		application	
	Depth to bedrock	1.00	Too steep for	1.00
			sprinkler	
			irrigation	
			Slow water	0.94
			movement	
			Too acid	0.91
			Depth to bedrock	0.26

Soil Survey of Newberry County, South Carolina

Table 8.--Forestland Productivity

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
AtB:				
Altavista-----	loblolly pine-----	95	142	loblolly pine, shortleaf pine, water oak, white oak, willow oak, yellow-poplar
	white oak-----	77	57	
CaB:				
Callison-----	loblolly pine-----	77	105	loblolly pine, shortleaf pine
	shortleaf pine-----	64	97	
CaC:				
Callison-----	loblolly pine-----	77	105	loblolly pine, shortleaf pine
	shortleaf pine-----	64	97	
CcA:				
Cartecay-----	yellow-poplar-----	96	100	yellow-poplar, loblolly pine, American sycamore, eastern cottonwood, sweetgum, water oak
	loblolly pine-----	95	142	
	sweetgum-----	100	138	
	water oak-----	90	86	
	willow oak-----	90	86	
CdB2:				
Cataula-----	loblolly pine-----	83	116	loblolly pine, yellow-poplar, southern red oak, white oak
	yellow-poplar-----	84	79	
	sweetgum-----	93	116	
	white oak-----	82	64	
	southern red oak----	81	63	
CdC2:				
Cataula-----	loblolly pine-----	83	116	loblolly pine, yellow-poplar, southern red oak, white oak
	yellow-poplar-----	84	79	
	sweetgum-----	93	116	
	white oak-----	82	64	
	southern red oak----	81	63	
CeB:				
Cecil-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
CfB2:				
Cecil-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber	
			cu ft/ac	
CfC2:				
Cecil-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
CfD2:				
Cecil-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
CnA:				
Chenneby-----	yellow-poplar-----	96	100	yellow-poplar, loblolly pine, water oak
	loblolly pine-----	95	142	
	sweetgum-----	100	138	
	water oak-----	90	86	
	American sycamore---	97	116	
CyA:				
Chenneby-----	yellow-poplar-----	96	100	yellow-poplar, loblolly pine, water oak
	loblolly pine-----	95	142	
	sweetgum-----	100	138	
	water oak-----	90	86	
	American sycamore---	97	116	
DaB2:				
Davidson-----	loblolly pine-----	81	112	loblolly pine, shortleaf pine, southern red oak, white oak, yellow- poplar
	shortleaf pine-----	65	99	
	white oak-----	70	52	
	southern red oak----	70	52	
GaB2:				
Georgeville-----	loblolly pine-----	83	116	loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine-----	71	112	
	longleaf pine-----	67	72	
	white oak-----	73	55	
	southern red oak----	68	50	
GaC2:				
Georgeville-----	loblolly pine-----	83	116	loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine-----	71	112	
	longleaf pine-----	67	72	
	white oak-----	73	55	
	southern red oak----	68	50	
GnC2:				
Gundy-----	loblolly pine-----	83	116	loblolly pine, shortleaf pine
	white oak-----	73	55	

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
GnD2:				
Gundy-----	loblolly pine-----	83	116	loblolly pine, shortleaf pine
	white oak-----	73	55	
GnE2:				
Gundy-----	loblolly pine-----	83	116	loblolly pine, shortleaf pine
	white oak-----	73	55	
HaB:				
Hard Labor-----	loblolly pine-----	90	131	loblolly pine, shortleaf pine
	shortleaf pine-----	68	106	
HaC:				
Hard Labor-----	loblolly pine-----	90	131	loblolly pine, shortleaf pine
	shortleaf pine-----	68	106	
HeB:				
Helena-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	
HeC:				
Helena-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	
HwB2:				
Hiwassee-----	loblolly pine-----	96	145	loblolly pine, shortleaf pine, southern red oak, white oak
	white oak-----	79	61	
	southern red oak----	83	65	
HwD2:				
Hiwassee-----	loblolly pine-----	96	145	loblolly pine, shortleaf pine, southern red oak, white oak
	white oak-----	79	61	
	southern red oak----	83	65	
McB:				
Mecklenburg-----	loblolly pine-----	86	123	loblolly pine, shortleaf pine
	yellow-poplar-----	97	102	
	shortleaf pine-----	64	97	
MeB2:				
Mecklenburg-----	loblolly pine-----	86	123	loblolly pine, shortleaf pine
	yellow-poplar-----	97	102	
	shortleaf pine-----	64	97	
MeC2:				
Mecklenburg-----	loblolly pine-----	86	123	loblolly pine, shortleaf pine
	yellow-poplar-----	97	102	
	shortleaf pine-----	64	97	

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
PaD2:				
Pacolet-----	loblolly pine-----	79	108	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	88	86	
	shortleaf pine-----	76	122	
	white oak-----	67	49	
	southern red oak----	76	58	
	sweetgum-----	79	77	
PaE2:				
Pacolet-----	loblolly pine-----	79	108	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	88	86	
	shortleaf pine-----	76	122	
	white oak-----	67	49	
	southern red oak----	76	58	
	sweetgum-----	79	77	
PaF2:				
Pacolet-----	loblolly pine-----	79	108	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	88	86	
	shortleaf pine-----	76	122	
	white oak-----	67	49	
	southern red oak----	76	58	
	sweetgum-----	79	77	
PcC3:				
Pacolet-----	loblolly pine-----	79	108	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	88	86	
	shortleaf pine-----	76	122	
	white oak-----	67	49	
	southern red oak----	76	58	
	sweetgum-----	79	77	
PmB:				
Prosperity-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	
Bush River-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	
Helena-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	
PmC:				
Prosperity-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	
Bush River-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
PmC:				
Helena-----	loblolly pine-----	84	118	loblolly pine, yellow-poplar, shortleaf pine
	shortleaf pine-----	66	101	
	white oak-----	72	54	
	southern red oak----	72	54	
RnC2:				
Rion-----	shortleaf pine-----	75	120	loblolly pine, shortleaf pine, yellow-poplar
	yellow-poplar-----	98	104	
RnD2:				
Rion-----	shortleaf pine-----	75	120	loblolly pine, shortleaf pine, yellow-poplar
	yellow-poplar-----	98	104	
RnE2:				
Rion-----	shortleaf pine-----	75	120	loblolly pine, shortleaf pine, yellow-poplar
	yellow-poplar-----	98	104	
RnF2:				
Rion-----	shortleaf pine-----	75	120	loblolly pine, shortleaf pine, yellow-poplar
	yellow-poplar-----	98	104	
SaB:				
Santuc-----	loblolly pine-----	95	142	loblolly pine, shortleaf pine, water oak, white oak, willow oak, yellow-poplar
	white oak-----	77	57	
	yellow-poplar-----	90	90	
SaC:				
Santuc-----	loblolly pine-----	95	142	loblolly pine, shortleaf pine, water oak, white oak, willow oak, yellow-poplar
	white oak-----	77	57	
	yellow-poplar-----	90	90	
SeB:				
Sedgefield-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
ShA:				
Shellbluff-----	yellow-poplar-----	98	104	yellow-poplar, loblolly pine, black walnut, cherrybark oak
	loblolly pine-----	110	177	
	sweetgum-----	96	125	
ToA:				
Toccoa-----	yellow-poplar-----	107	114	yellow-poplar, loblolly pine, American sycamore, water oak, cherrybark oak, willow oak
	loblolly pine-----	90	129	
	sweetgum-----	100	143	

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
UcC2: Urban land.				
Cecil-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
UsC: Urban land.				
Cecil-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
Santuc-----	loblolly pine-----	95	142	loblolly pine, shortleaf pine, water oak, white oak, willow oak, yellow-poplar
	white oak-----	77	57	
	yellow-poplar-----	90	90	
WnB: Winnsboro-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
WoA: Worsham-----	loblolly pine-----	89	129	loblolly pine, yellow-poplar, white oak
	yellow-poplar-----	93	95	
	white oak-----	83	65	
	sweetgum-----	81	82	
WwD2: Wynott-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
Wilkes-----	post oak-----	79	61	loblolly pine, shortleaf pine
	sweetgum-----	83	87	
	southern red oak----	78	60	
WwE2: Wynott-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
Wilkes-----	post oak-----	79	61	loblolly pine, shortleaf pine
	sweetgum-----	83	87	
	southern red oak----	78	60	

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
WyB2:				
Wynott-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
Winnsboro-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
WyC2:				
Wynott-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
Winnsboro-----	loblolly pine-----	82	114	loblolly pine, shortleaf pine
	white oak-----	65	48	
1B:				
Appling-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
1C:				
Appling-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
2B2:				
Appling-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
2C2:				
Appling-----	loblolly pine-----	84	118	loblolly pine, shortleaf pine, southern red oak, white oak
	yellow-poplar-----	95	98	
	sweetgum-----	76	70	
	shortleaf pine-----	67	103	
	white oak-----	75	57	
	southern red oak----	80	62	
	post oak-----	72	54	
3B:				
Buncombe-----	loblolly pine-----	90	129	loblolly pine, yellow-poplar
	yellow-poplar-----	100	114	

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
5A: Cartecay-----	yellow-poplar----- loblolly pine----- sweetgum----- water oak----- willow oak-----	96 95 100 90 90	100 142 138 86 86	yellow-poplar, loblolly pine, American sycamore, eastern cottonwood, sweetgum, water oak
7B: Cataula-----	loblolly pine----- yellow-poplar----- sweetgum----- white oak----- southern red oak----	83 84 93 82 81	116 79 116 64 63	loblolly pine, yellow-poplar, southern red oak, white oak
8B2: Cataula-----	loblolly pine----- yellow-poplar----- sweetgum----- white oak----- southern red oak----	83 84 93 82 81	116 79 116 64 63	loblolly pine, yellow-poplar, southern red oak, white oak
8C2: Cataula-----	loblolly pine----- yellow-poplar----- sweetgum----- white oak----- southern red oak----	83 84 93 82 81	116 79 116 64 63	loblolly pine, yellow-poplar, southern red oak, white oak
10B: Cecil-----	loblolly pine----- yellow-poplar----- sweetgum----- shortleaf pine----- white oak----- southern red oak---- post oak-----	84 95 76 67 75 80 72	118 98 70 103 57 62 54	loblolly pine, shortleaf pine, southern red oak, white oak
10C: Cecil-----	loblolly pine----- yellow-poplar----- sweetgum----- shortleaf pine----- white oak----- southern red oak---- post oak-----	84 95 76 67 75 80 72	118 98 70 103 57 62 54	loblolly pine, shortleaf pine, southern red oak, white oak
11B2: Cecil-----	loblolly pine----- yellow-poplar----- sweetgum----- shortleaf pine----- white oak----- southern red oak---- post oak-----	84 95 76 67 75 80 72	118 98 70 103 57 62 54	loblolly pine, shortleaf pine, southern red oak, white oak

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
11C2: Cecil-----	loblolly pine----- yellow-poplar----- sweetgum----- shortleaf pine----- white oak----- southern red oak---- post oak-----	84 95 76 67 75 80 72	118 98 70 103 57 62 54	loblolly pine, shortleaf pine, southern red oak, white oak
11D2: Cecil-----	loblolly pine----- yellow-poplar----- sweetgum----- shortleaf pine----- white oak----- southern red oak---- post oak-----	84 95 76 67 75 80 72	118 98 70 103 57 62 54	loblolly pine, shortleaf pine, southern red oak, white oak
12B3: Cecil-----	loblolly pine----- shortleaf pine----- Virginia pine----- white oak-----	72 63 65 64	100 100 100 43	loblolly pine, shortleaf pine
12C3: Cecil-----	loblolly pine----- shortleaf pine----- Virginia pine----- white oak-----	72 63 65 64	100 100 100 43	loblolly pine, shortleaf pine
13A: Chenneby-----	yellow-poplar----- loblolly pine----- sweetgum----- water oak----- American sycamore---	96 95 100 90 97	100 142 138 86 116	yellow-poplar, loblolly pine, water oak
32B2: Hiwassee-----	loblolly pine----- white oak----- southern red oak----	96 79 83	145 61 65	loblolly pine, shortleaf pine, southern red oak, white oak
32C2: Hiwassee-----	loblolly pine----- white oak----- southern red oak----	96 79 83	145 61 65	loblolly pine, shortleaf pine, southern red oak, white oak
40B: Mecklenburg-----	loblolly pine----- yellow-poplar----- shortleaf pine-----	86 97 64	123 102 97	loblolly pine, shortleaf pine
41B2: Mecklenburg-----	loblolly pine----- yellow-poplar----- shortleaf pine-----	86 97 64	123 102 97	loblolly pine, shortleaf pine

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
41C2: Mecklenburg-----	loblolly pine----- yellow-poplar----- shortleaf pine-----	86 97 64	123 102 97	loblolly pine, shortleaf pine
41D2: Mecklenburg-----	loblolly pine----- yellow-poplar----- shortleaf pine-----	86 97 64	123 102 97	loblolly pine, shortleaf pine
44C2: Pacolet-----	loblolly pine----- yellow-poplar----- shortleaf pine----- white oak----- southern red oak---- sweetgum-----	79 88 76 67 76 79	108 86 122 49 58 77	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
44D2: Pacolet-----	loblolly pine----- yellow-poplar----- shortleaf pine----- white oak----- southern red oak---- sweetgum-----	79 88 76 67 76 79	108 86 122 49 58 77	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
44E2: Pacolet-----	loblolly pine----- yellow-poplar----- shortleaf pine----- white oak----- southern red oak---- sweetgum-----	79 88 76 67 76 79	108 86 122 49 58 77	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
45D3: Pacolet-----	loblolly pine----- yellow-poplar----- shortleaf pine----- white oak----- southern red oak---- sweetgum-----	79 88 76 67 76 79	108 86 122 49 58 77	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
45E3: Pacolet-----	loblolly pine----- yellow-poplar----- shortleaf pine----- white oak----- southern red oak---- sweetgum-----	79 88 76 67 76 79	108 86 122 49 58 77	loblolly pine, yellow-poplar, shortleaf pine, southern red oak, white oak
47C2: Rion-----	shortleaf pine----- yellow-poplar-----	75 98	120 104	loblolly pine, shortleaf pine, yellow-poplar
47D2: Rion-----	shortleaf pine----- yellow-poplar-----	75 98	120 104	loblolly pine, shortleaf pine, yellow-poplar

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
47E2: Rion-----	shortleaf pine----- yellow-poplar-----	75 98	120 104	loblolly pine, shortleaf pine, yellow-poplar
48D3: Rion-----	shortleaf pine----- yellow-poplar-----	75 98	120 104	loblolly pine, shortleaf pine, yellow-poplar
28B: Santuc-----	loblolly pine----- white oak----- yellow-poplar-----	95 77 90	142 57 90	loblolly pine, shortleaf pine, water oak, white oak, willow oak, yellow-poplar
28C: Santuc-----	loblolly pine----- white oak----- yellow-poplar-----	95 77 90	142 57 90	loblolly pine, shortleaf pine, water oak, white oak, willow oak, yellow-poplar
15A: Shellbluff-----	yellow-poplar----- loblolly pine----- sweetgum-----	98 110 96	104 177 125	yellow-poplar, loblolly pine, black walnut, cherrybark oak
49A: Toccoa-----	yellow-poplar----- loblolly pine----- sweetgum-----	107 90 100	114 129 143	yellow-poplar, loblolly pine, American sycamore, water oak, cherrybark oak, willow oak
50E. Udorthents				
60C2: Wilkes-----	post oak----- sweetgum----- southern red oak----	79 83 78	61 87 60	loblolly pine, shortleaf pine
60D2: Wilkes-----	post oak----- sweetgum----- southern red oak----	79 83 78	61 87 60	loblolly pine, shortleaf pine
22B: Winnsboro-----	loblolly pine----- white oak-----	82 65	114 48	loblolly pine, shortleaf pine
22C: Winnsboro-----	loblolly pine----- white oak-----	82 65	114 48	loblolly pine, shortleaf pine

Soil Survey of Newberry County, South Carolina

Table 8.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber cu ft/ac	
23B2: Winnsboro-----	loblolly pine----- white oak-----	82 65	114 48	loblolly pine, shortleaf pine
23C2: Winnsboro-----	loblolly pine----- white oak-----	82 65	114 48	loblolly pine, shortleaf pine
23D2: Winnsboro-----	loblolly pine----- white oak-----	82 65	114 48	loblolly pine, shortleaf pine
24D3: Winnsboro-----	loblolly pine----- white oak-----	82 65	114 48	loblolly pine, shortleaf pine

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Slight		Moderately suited Wetness	0.50	Moderate Low strength	0.50
CaB: Callison-----	Moderate Low strength	0.50	Moderately suited Low strength	0.50	Severe Low strength	1.00
CaC: Callison-----	Moderate Low strength	0.50	Moderately suited Slope Low strength	0.50 0.50	Severe Low strength	1.00
CcA: Cartecay-----	Severe Flooding	1.00	Poorly suited Flooding Wetness	1.00 1.00	Moderate Low strength	0.50
CdB2: Cataula-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
CdC2: Cataula-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
CeB: Cecil-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
CfB2: Cecil-----	Moderate Low strength	0.50	Moderately suited Low strength	0.50	Severe Low strength	1.00
CfC2: Cecil-----	Moderate Low strength	0.50	Moderately suited Slope Low strength	0.50 0.50	Severe Low strength	1.00
CfD2: Cecil-----	Moderate Low strength	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
CnA: Chenneby-----	Severe Flooding Low strength	1.00 0.50	Poorly suited Flooding Low strength Wetness	1.00 0.50 0.50	Severe Low strength	1.00

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CyA: Chenneby-----	Severe Wetness Low strength	1.00 0.50	Poorly suited Ponding Wetness Low strength	1.00 1.00 0.50	Severe Low strength Wetness	1.00 0.50
DaB2: Davidson-----	Moderate Low strength	0.50	Moderately suited Low strength	0.50	Severe Low strength	1.00
GaB2: Georgeville-----	Moderate Low strength	0.50	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50	Severe Low strength	1.00
GaC2: Georgeville-----	Moderate Low strength	0.50	Moderately suited Slope Low strength Stickiness; high plasticity index	0.50 0.50 0.50	Severe Low strength	1.00
GnC2: Gundy-----	Moderate Low strength	0.50	Moderately suited Slope Low strength	0.50 0.50	Severe Low strength	1.00
GnD2: Gundy-----	Moderate Low strength	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
GnE2: Gundy-----	Moderate Slope	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
HaB: Hard Labor-----	Slight		Well suited		Moderate Low strength	0.50
HaC: Hard Labor-----	Slight		Moderately suited Slope	0.50	Moderate Low strength	0.50
HeB: Helena-----	Slight		Moderately suited Wetness	0.50	Moderate Low strength	0.50
HeC: Helena-----	Slight		Moderately suited Slope Wetness	0.50 0.50	Moderate Low strength	0.50
HwB2: Hiwassee-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HwD2: Hiwassee-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
McB: Mecklenburg-----	Slight		Well suited		Moderate Low strength	0.50
MeB2: Mecklenburg-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
MeC2: Mecklenburg-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
PaD2: Pacolet-----	Moderate Low strength	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
PaE2: Pacolet-----	Moderate Slope	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
PaF2: Pacolet-----	Severe Slope Low strength	1.00 0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
PcC3: Pacolet-----	Moderate Low strength	0.50	Moderately suited Slope Low strength Stickiness; high plasticity index	0.50 0.50 0.50	Severe Low strength	1.00
PmB: Prosperity-----	Moderate Low strength	0.50	Moderately suited Wetness	0.50	Moderate Low strength	0.50
Bush River-----	Slight		Moderately suited Wetness	0.50	Moderate Low strength	0.50
Helena-----	Slight		Moderately suited Wetness	0.50	Moderate Low strength	0.50
PmC: Prosperity-----	Moderate Low strength	0.50	Moderately suited Slope Wetness	0.50 0.50	Moderate Low strength	0.50
Bush River-----	Slight		Moderately suited Slope Wetness	0.50 0.50	Moderate Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PmC: Helena-----	Slight		Moderately suited Slope Wetness	0.50 0.50	Moderate Low strength	0.50
RnC2: Rion-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
RnD2: Rion-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
RnE2: Rion-----	Moderate Slope	0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
RnF2: Rion-----	Severe Slope	1.00	Poorly suited Slope	1.00	Moderate Low strength	0.50
SaB: Santuc-----	Slight		Well suited		Moderate Low strength	0.50
SaC: Santuc-----	Slight		Moderately suited Slope	0.50	Moderate Low strength	0.50
SeB: Sedgefield-----	Slight		Moderately suited Wetness	0.50	Moderate Low strength	0.50
ShA: Shellbluff-----	Severe Flooding Low strength	1.00 0.50	Poorly suited Flooding Low strength	1.00 0.50	Severe Low strength	1.00
ToA: Toccoa-----	Severe Flooding	1.00	Poorly suited Flooding	1.00	Moderate Low strength	0.50
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
UsC: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
Santuc-----	Slight		Well suited		Moderate Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WnB: Winnsboro-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
WoA: Worsham-----	Moderate Low strength	0.50	Poorly suited Wetness Low strength	1.00 0.50	Severe Low strength	1.00
WwD2: Wynott-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
Wilkes-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
WwE2: Wynott-----	Moderate Slope	0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
Wilkes-----	Moderate Slope Restrictive layer	0.50 0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
WyB2: Wynott-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
Winnsboro-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
Wyc2: Wynott-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
Winnsboro-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
1B: Appling-----	Slight		Well suited		Moderate Low strength	0.50
1C: Appling-----	Slight		Moderately suited Slope	0.50	Moderate Low strength	0.50
2B2: Appling-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
2C2: Appling-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
3B: Buncombe-----	Moderate Sandiness	0.50	Moderately suited Sandiness	0.50	Moderate Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
5A: Cartecay-----	Severe Flooding	1.00	Poorly suited Flooding Wetness	1.00 1.00	Moderate Low strength	0.50
7B: Cataula-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
8B2: Cataula-----	Moderate Low strength	0.50	Moderately suited Low strength	0.50	Severe Low strength	1.00
8C2: Cataula-----	Moderate Low strength	0.50	Moderately suited Slope Low strength	0.50 0.50	Severe Low strength	1.00
10B: Cecil-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
10C: Cecil-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
11B2: Cecil-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
11C2: Cecil-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
11D2: Cecil-----	Moderate Slope	0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
12B3: Cecil-----	Moderate Low strength	0.50	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50	Severe Low strength	1.00
12C3: Cecil-----	Moderate Low strength	0.50	Moderately suited Slope Low strength Stickiness; high plasticity index	0.50 0.50 0.50	Severe Low strength	1.00
13A: Chenneby-----	Severe Flooding Low strength	1.00 0.50	Poorly suited Flooding Low strength Wetness	1.00 0.50 0.50	Severe Low strength	1.00

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
32B2: Hiwassee-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
32C2: Hiwassee-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
40B: Mecklenburg-----	Slight		Well suited		Moderate Low strength	0.50
41B2: Mecklenburg-----	Moderate Low strength	0.50	Moderately suited Low strength	0.50	Severe Low strength	1.00
41C2: Mecklenburg-----	Moderate Low strength	0.50	Moderately suited Slope Low strength	0.50 0.50	Severe Low strength	1.00
41D2: Mecklenburg-----	Moderate Slope	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
44C2: Pacolet-----	Moderate Low strength	0.50	Moderately suited Slope Low strength	0.50 0.50	Severe Low strength	1.00
44D2: Pacolet-----	Moderate Slope	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
44E2: Pacolet-----	Severe Slope Low strength	1.00 0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
45D3: Pacolet-----	Moderate Slope	0.50	Poorly suited Slope Low strength Stickiness; high plasticity index	1.00 0.50 0.50	Severe Low strength	1.00
45E3: Pacolet-----	Severe Slope Low strength	1.00 0.50	Poorly suited Slope Low strength Stickiness; high plasticity index	1.00 0.50 0.50	Severe Low strength	1.00
47C2: Rion-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
47D2: Rion-----	Moderate Slope	0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
47E2: Rion-----	Severe Slope	1.00	Poorly suited Slope	1.00	Moderate Low strength	0.50
48D3: Rion-----	Moderate Slope	0.50	Poorly suited Slope Low strength	1.00 0.50	Severe Low strength	1.00
28B: Santuc-----	Slight		Well suited		Moderate Low strength	0.50
28C: Santuc-----	Slight		Moderately suited Slope	0.50	Moderate Low strength	0.50
15A: Shellbluff-----	Severe Flooding Low strength	1.00 0.50	Poorly suited Flooding Low strength	1.00 0.50	Severe Low strength	1.00
49A: Toccoa-----	Severe Flooding	1.00	Poorly suited Flooding	1.00	Moderate Low strength	0.50
50E: Udorthents-----	Moderate Slope	0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
60C2: Wilkes-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
60D2: Wilkes-----	Moderate Slope Restrictive layer	0.50 0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
22B: Winnsboro-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
22C: Winnsboro-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50
23B2: Winnsboro-----	Moderate Low strength	0.50	Well suited		Moderate Low strength	0.50
23C2: Winnsboro-----	Moderate Low strength	0.50	Moderately suited Slope	0.50	Moderate Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part I—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23D2: Winnsboro-----	Moderate Slope	0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50
24D3: Winnsboro-----	Moderate Slope	0.50	Poorly suited Slope	1.00	Moderate Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Wetness	0.50
CaB: Callison-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Low strength	0.50
CaC: Callison-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Low strength	0.50 0.50
CcA: Cartecay-----	Slight		Slight		Poorly suited Flooding Wetness	1.00 1.00
CdB2: Cataula-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
CdC2: Cataula-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
CeB: Cecil-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
CfB2: Cecil-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Low strength	0.50
CfC2: Cecil-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Low strength	0.50 0.50
CfD2: Cecil-----	Slight		Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
CnA: Chenneby-----	Slight		Slight		Poorly suited Flooding Low strength Wetness	1.00 0.50 0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CyA: Chenneby-----	Slight		Slight		Poorly suited Ponding Wetness Low strength	1.00 1.00 0.50
DaB2: Davidson-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Low strength	0.50
GaB2: Georgeville-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50
GaC2: Georgeville-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Low strength Stickiness; high plasticity index	0.50 0.50 0.50
GnC2: Gundy-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Low strength	0.50 0.50
GnD2: Gundy-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
GnE2: Gundy-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
HaB: Hard Labor-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
HaC: Hard Labor-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
HeB: Helena-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Wetness	0.50
HeC: Helena-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Wetness	0.50 0.50
HwB2: Hiwassee-----	Slight		Moderate Slope/erodibility	0.50	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HwD2: Hiwassee-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
McB: Mecklenburg-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
MeB2: Mecklenburg-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
MeC2: Mecklenburg-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
PaD2: Pacolet-----	Slight		Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
PaE2: Pacolet-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
PaF2: Pacolet-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
PcC3: Pacolet-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Low strength Stickiness; high plasticity index	0.50 0.50 0.50
PmB: Prosperity-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Wetness	0.50
Bush River-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Wetness	0.50
Helena-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Wetness	0.50
PmC: Prosperity-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Wetness	0.50 0.50
Bush River-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Wetness	0.50 0.50
Helena-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope Wetness	0.50 0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RnC2: Rion-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
RnD2: Rion-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
RnE2: Rion-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
RnF2: Rion-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
SaB: Santuc-----	Slight		Slight		Well suited	
SaC: Santuc-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
SeB: Sedgefield-----	Slight		Slight		Moderately suited Wetness	0.50
ShA: Shellbluff-----	Slight		Slight		Poorly suited Flooding Low strength	1.00 0.50
ToA: Toccoa-----	Slight		Slight		Poorly suited Flooding	1.00
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
UsC: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
Santuc-----	Slight		Slight		Well suited	
WnB: Winnsboro-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
WoA: Worsham-----	Slight		Slight		Poorly suited Wetness Low strength	1.00 0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WwD2: Wynott-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
Wilkes-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
WwE2: Wynott-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
Wilkes-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
WyB2: Wynott-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
Winnsboro-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
WyC2: Wynott-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
Winnsboro-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
1B: Appling-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
1C: Appling-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
2B2: Appling-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
2C2: Appling-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
3B: Buncombe-----	Slight		Slight		Moderately suited Sandiness	0.50
5A: Cartecay-----	Slight		Slight		Poorly suited Flooding Wetness	1.00 1.00

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
7B: Cataula-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
8B2: Cataula-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Low strength	0.50
8C2: Cataula-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope Low strength	0.50 0.50
10B: Cecil-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
10C: Cecil-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
11B2: Cecil-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
11C2: Cecil-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
11D2: Cecil-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
12B3: Cecil-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50
12C3: Cecil-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope Low strength Stickiness; high plasticity index	0.50 0.50 0.50
13A: Chenneby-----	Slight		Slight		Poorly suited Flooding Low strength Wetness	1.00 0.50 0.50
32B2: Hiwassee-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
32C2: Hiwassee-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
40B: Mecklenburg-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
41B2: Mecklenburg-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Low strength	0.50
41C2: Mecklenburg-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope Low strength	0.50 0.50
41D2: Mecklenburg-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
44C2: Pacolet-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope Low strength	0.50 0.50
44D2: Pacolet-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
44E2: Pacolet-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
45D3: Pacolet-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength Stickiness; high plasticity index	1.00 0.50 0.50
45E3: Pacolet-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength Stickiness; high plasticity index	1.00 0.50 0.50
47C2: Rion-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
47D2: Rion-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
47E2: Rion-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part II—Continued

Map symbol and soil name	Hazard of off-road or off-trail erosion		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48D3: Rion-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope Low strength	1.00 0.50
28B: Santuc-----	Slight		Slight		Well suited	
28C: Santuc-----	Slight		Moderate Slope/erodibility	0.50	Moderately suited Slope	0.50
15A: Shellbluff-----	Slight		Slight		Poorly suited Flooding Low strength	1.00 0.50
49A: Toccoa-----	Slight		Slight		Poorly suited Flooding	1.00
50E: Udorthents-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
60C2: Wilkes-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
60D2: Wilkes-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
22B: Winnsboro-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
22C: Winnsboro-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
23B2: Winnsboro-----	Slight		Moderate Slope/erodibility	0.50	Well suited	
23C2: Winnsboro-----	Slight		Severe Slope/erodibility	0.95	Moderately suited Slope	0.50
23D2: Winnsboro-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00
24D3: Winnsboro-----	Moderate Slope/erodibility	0.50	Severe Slope/erodibility	0.95	Poorly suited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Well suited		Well suited		Well suited	
CaB: Callison-----	Well suited		Well suited		Moderately suited Low strength	0.50
CaC: Callison-----	Well suited		Moderately suited Slope	0.50	Moderately suited Low strength	0.50
CcA: Cartecay-----	Well suited		Well suited		Well suited	
CdB2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
CdC2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
CeB: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
CfB2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Moderately suited Low strength	0.50
CfC2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
CfD2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
CnA: Chenneby-----	Well suited		Well suited		Moderately suited Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CyA: Chenneby-----	Poorly suited Wetness	0.75	Poorly suited Wetness	0.75	Poorly suited Wetness Low strength	1.00 0.50
DaB2: Davidson-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Moderately suited Low strength	0.50
GaB2: Georgeville-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50
GaC2: Georgeville-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50
GnC2: Gundy-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
GnD2: Gundy-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
GnE2: Gundy-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Low strength Slope	0.50 0.50
HaB: Hard Labor-----	Well suited		Well suited		Well suited	
HaC: Hard Labor-----	Well suited		Moderately suited Slope	0.50	Well suited	
HeB: Helena-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
HeC: Helena-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HwB2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
HwD2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
McB: Mecklenburg-----	Well suited		Well suited		Well suited	
MeB2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
MeC2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
PaD2: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
PaE2: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Low strength Slope	0.50 0.50
PaF2: Pacolet-----	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Unsuited Slope Stickiness; high plasticity index	1.00 0.75	Moderately suited Slope Low strength	0.50 0.50
PcC3: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50
PmB: Prosperity-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
Bush River-----	Well suited		Well suited		Well suited	
Helena-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PmC: Prosperity-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
Bush River-----	Well suited		Moderately suited Slope	0.50	Well suited	
Helena-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
RnC2: Rion-----	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Slope Stickiness; high plasticity index	0.50 0.50	Well suited	
RnD2: Rion-----	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Slope Stickiness; high plasticity index	0.50 0.50	Well suited	
RnE2: Rion-----	Moderately suited Stickiness; high plasticity index	0.50	Poorly suited Slope Stickiness; high plasticity index	0.75 0.50	Moderately suited Slope	0.50
RnF2: Rion-----	Moderately suited Slope Stickiness; high plasticity index	0.50 0.50	Unsuited Slope Stickiness; high plasticity index	1.00 0.50	Moderately suited Slope	0.50
SaB: Santuc-----	Well suited		Well suited		Well suited	
SaC: Santuc-----	Well suited		Moderately suited Slope	0.50	Well suited	
SeB: Sedgefield-----	Well suited		Well suited		Well suited	
ShA: Shellbluff-----	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Low strength	0.50
ToA: Toccoa-----	Well suited		Well suited		Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
UsC: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
Santuc-----	Well suited		Well suited		Well suited	
WnB: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
WoA: Worsham-----	Well suited		Well suited		Moderately suited Low strength	0.50
WwD2: Wynott-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
Wilkes-----	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Stickiness; high plasticity index Slope	0.50 0.50	Well suited	
WwE2: Wynott-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Slope	0.50
Wilkes-----	Moderately suited Stickiness; high plasticity index	0.50	Poorly suited Slope Stickiness; high plasticity index	0.75 0.50	Moderately suited Slope	0.50
WyB2: Wynott-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WyC2: Wynott-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
1B: Appling-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
1C: Appling-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
2B2: Appling-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
2C2: Appling-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
3B: Buncombe-----	Moderately suited Sandiness	0.50	Moderately suited Sandiness	0.50	Moderately suited Sandiness	0.50
5A: Cartecay-----	Well suited		Well suited		Well suited	
7B: Cataula-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
8B2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Moderately suited Low strength	0.50
8C2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
10B: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10C: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
11B2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
11C2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
11D2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Slope	0.50
12B3: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50
12C3: Cecil-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength Stickiness; high plasticity index	0.50 0.50
13A: Chenneby-----	Well suited		Well suited		Moderately suited Low strength	0.50
32B2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
32C2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
40B: Mecklenburg-----	Well suited		Well suited		Well suited	
41B2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Moderately suited Low strength	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41C2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
41D2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Low strength Slope	0.50 0.50
44C2: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Moderately suited Low strength	0.50
44D2: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Low strength Slope	0.50 0.50
44E2: Pacolet-----	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Unsuited Slope Stickiness; high plasticity index	1.00 0.75	Moderately suited Slope Low strength	0.50 0.50
45D3: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Low strength Slope Stickiness; high plasticity index	0.50 0.50 0.50
45E3: Pacolet-----	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Unsuited Slope Stickiness; high plasticity index	1.00 0.75	Moderately suited Slope Low strength Stickiness; high plasticity index	0.50 0.50 0.50
47C2: Rion-----	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Slope Stickiness; high plasticity index	0.50 0.50	Well suited	
47D2: Rion-----	Moderately suited Stickiness; high plasticity index	0.50	Poorly suited Slope Stickiness; high plasticity index	0.75 0.50	Moderately suited Slope	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
47E2: Rion-----	Moderately suited Slope Stickiness; high plasticity index	0.50 0.50	Unsuited Slope Stickiness; high plasticity index	1.00 0.50	Moderately suited Slope	0.50
48D3: Rion-----	Moderately suited Stickiness; high plasticity index	0.50	Poorly suited Slope Stickiness; high plasticity index	0.75 0.50	Moderately suited Low strength Slope	0.50 0.50
28B: Santuc-----	Well suited		Well suited		Well suited	
28C: Santuc-----	Well suited		Moderately suited Slope	0.50	Well suited	
15A: Shellbluff-----	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Low strength	0.50
49A: Toccoa-----	Well suited		Well suited		Well suited	
50E: Udorthents-----	Well suited		Poorly suited Slope	0.75	Well suited	
60C2: Wilkes-----	Moderately suited Stickiness; high plasticity index	0.50	Moderately suited Stickiness; high plasticity index Slope	0.50 0.50	Well suited	
60D2: Wilkes-----	Moderately suited Stickiness; high plasticity index	0.50	Poorly suited Slope Stickiness; high plasticity index	0.75 0.50	Moderately suited Slope	0.50
22B: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	
22C: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
23B2: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index	0.75	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part III—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23C2: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Stickiness; high plasticity index Slope	0.75 0.50	Well suited	
23D2: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Slope	0.50
24D3: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.75	Poorly suited Slope Stickiness; high plasticity index	0.75 0.75	Moderately suited Slope	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part IV

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Well suited		Well suited	
CaB: Callison-----	Well suited		Well suited	
CaC: Callison-----	Well suited		Well suited	
CcA: Cartecay-----	Well suited		Well suited	
CdB2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
CdC2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
CeB: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
CfB2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
CfC2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
CfD2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
CnA: Chenneby-----	Well suited		Well suited	
CyA: Chenneby-----	Unsuited Wetness	0.75	Unsuited Wetness	1.00
DaB2: Davidson-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
GaB2: Georgeville-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
GaC2: Georgeville-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
GnC2: Gundy-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
GnD2: Gundy-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
GnE2: Gundy-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
HaB: Hard Labor-----	Well suited		Well suited	
HaC: Hard Labor-----	Well suited		Well suited	
HeB: Helena-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
HeC: Helena-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
HwB2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
HwD2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
McB: Mecklenburg-----	Well suited		Well suited	
MeB2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
MeC2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
PaD2: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
PaE2: Pacolet-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
PaF2: Pacolet-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
PcC3: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
PmB: Prosperity-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
Bush River-----	Well suited		Well suited	
Helena-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
PmC: Prosperity-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
Bush River-----	Well suited		Well suited	
Helena-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
RnC2: Rion-----	Well suited		Well suited	
RnD2: Rion-----	Well suited		Well suited	
RnE2: Rion-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50

Soil Survey of Newberry County, South Carolina

Table 9.--Forestland Management, Part IV--Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
RnF2: Rion-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50
SaB: Santuc-----	Well suited		Well suited	
SaC: Santuc-----	Well suited		Well suited	
SeB: Sedgefield-----	Well suited		Well suited	
ShA: Shellbluff-----	Well suited		Well suited	
ToA: Toccoa-----	Well suited		Well suited	
UcC2: Urban land-----	Not rated		Not rated	
Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
UsC: Urban land-----	Not rated		Not rated	
Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
Santuc-----	Well suited		Well suited	
WnB: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
WoA: Worsham-----	Well suited		Well suited	
WwD2: Wynott-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
Wilkes-----	Well suited		Well suited	
WwE2: Wynott-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
Wilkes-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WyB2: Wynott-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
WyC2: Wynott-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
1B: Appling-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
1C: Appling-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
2B2: Appling-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
2C2: Appling-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
3B: Buncombe-----	Well suited		Well suited	
5A: Cartecay-----	Well suited		Well suited	
7B: Cataula-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
8B2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
8C2: Cataula-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
10B: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
10C: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
11B2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
11C2: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
11D2: Cecil-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
12B3: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
12C3: Cecil-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
13A: Chenneby-----	Well suited		Well suited	
32B2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
32C2: Hiwassee-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
40B: Mecklenburg-----	Well suited		Well suited	
41B2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
41C2: Mecklenburg-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
41D2: Mecklenburg-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
44C2: Pacolet-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
44D2: Pacolet-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
44E2: Pacolet-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
45D3: Pacolet-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
45E3: Pacolet-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
47C2: Rion-----	Well suited		Well suited	
47D2: Rion-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50
47E2: Rion-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50
48D3: Rion-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50
28B: Santuc-----	Well suited		Well suited	
28C: Santuc-----	Well suited		Well suited	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part IV—Continued

Map symbol and soil name	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
	Rating class and limiting features	Value	Rating class and limiting features	Value
15A: Shellbluff-----	Well suited		Well suited	
49A: Toccoa-----	Well suited		Well suited	
50E: Udorthents-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50
60C2: Wilkes-----	Well suited		Well suited	
60D2: Wilkes-----	Poorly suited Slope	0.50	Poorly suited Slope	0.50
22B: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
22C: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
23B2: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
23C2: Winnsboro-----	Poorly suited Stickiness; high plasticity index	0.50	Well suited	
23D2: Winnsboro-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50
24D3: Winnsboro-----	Poorly suited Slope Stickiness; high plasticity index	0.50 0.50	Poorly suited Slope	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Potential for damage to soil by fire		Potential for seedling mortality	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Moderate Texture/rock fragments	0.50	Low	
CaB: Callison-----	Moderate Texture/rock fragments	0.50	Low	
CaC: Callison-----	Moderate Texture/rock fragments	0.50	Low	
CcA: Cartecay-----	Moderate Texture/surface depth/rock fragments	0.50	High Wetness	1.00
CdB2: Cataula-----	Moderate Texture/rock fragments	0.50	Low	
CdC2: Cataula-----	Moderate Texture/rock fragments	0.50	Low	
CeB: Cecil-----	Moderate Texture/rock fragments	0.50	Low	
CfB2: Cecil-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
CfC2: Cecil-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
CfD2: Cecil-----	Moderate Texture/surface depth/rock fragments	0.50	Low	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire	Potential for seedling mortality		
	Rating class and limiting features	Value	Rating class and limiting features	Value
CnA: Chenneby-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
CyA: Chenneby-----	Moderate Texture/surface depth/rock fragments	0.50	High Wetness	1.00
DaB2: Davidson-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
GaB2: Georgeville-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
GaC2: Georgeville-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
GnC2: Gundy-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
GnD2: Gundy-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
GnE2: Gundy-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
HaB: Hard Labor-----	Moderate Texture/rock fragments	0.50	Low	
HaC: Hard Labor-----	Moderate Texture/rock fragments	0.50	Low	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire	Potential for seedling mortality		
	Rating class and limiting features	Value	Rating class and limiting features	Value
HeB: Helena-----	Moderate Texture/rock fragments	0.50	Low	
HeC: Helena-----	Moderate Texture/rock fragments	0.50	Low	
HwB2: Hiwassee-----	Moderate Texture/rock fragments	0.50	Low	
HwD2: Hiwassee-----	Moderate Texture/rock fragments	0.50	Low	
McB: Mecklenburg-----	Moderate Texture/rock fragments	0.50	Low	
MeB2: Mecklenburg-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
MeC2: Mecklenburg-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
PaD2: Pacolet-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
PaE2: Pacolet-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
PaF2: Pacolet-----	High Texture/slope/ surface depth/ rock fragments	1.00	Low	
PcC3: Pacolet-----	Low		Low	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire		Potential for seedling mortality	
	Rating class and limiting features	Value	Rating class and limiting features	Value
PmB:				
Prosperity-----	Moderate Texture/rock fragments	0.50	Low	
Bush River-----	Moderate Texture/rock fragments	0.50	Low	
Helena-----	Moderate Texture/rock fragments	0.50	Low	
PmC:				
Prosperity-----	Moderate Texture/rock fragments	0.50	Low	
Bush River-----	Moderate Texture/rock fragments	0.50	Low	
Helena-----	Moderate Texture/rock fragments	0.50	Low	
RnC2:				
Rion-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
RnD2:				
Rion-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
RnE2:				
Rion-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
RnF2:				
Rion-----	High Texture/slope/ surface depth/ rock fragments	1.00	Low	
SaB:				
Santuc-----	High Texture/surface depth/rock fragments	1.00	Moderate Soil reaction	0.50
SaC:				
Santuc-----	High Texture/surface depth/rock fragments	1.00	Moderate Soil reaction	0.50

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire	Value	Potential for seedling mortality	Value
	Rating class and limiting features		Rating class and limiting features	
SeB: Sedgefield-----	Moderate Texture/rock fragments	0.50	High Wetness	1.00
ShA: Shellbluff-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
ToA: Toccoa-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
UcC2: Urban land-----	Not rated		Not rated	
Cecil-----	Moderate Texture/rock fragments	0.50	Low	
UsC: Urban land-----	Not rated		Not rated	
Cecil-----	Moderate Texture/rock fragments	0.50	Low	
Santuc-----	High Texture/surface depth/rock fragments	1.00	Moderate Soil reaction	0.50
WnB: Winnsboro-----	Moderate Texture/rock fragments	0.50	Low	
WoA: Worsham-----	Moderate Texture/rock fragments	0.50	High Wetness	1.00
WwD2: Wynott-----	Moderate Texture/rock fragments	0.50	Low	
Wilkes-----	Moderate Texture/surface depth/rock fragments	0.50	Low	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire	Potential for seedling mortality		
	Rating class and limiting features	Value	Rating class and limiting features	Value
WwE2: Wynott-----	Moderate Texture/rock fragments	0.50	Low	
Wilkes-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
WyB2: Wynott-----	Moderate Texture/rock fragments	0.50	Low	
Winnsboro-----	Moderate Texture/rock fragments	0.50	Low	
WyC2: Wynott-----	Moderate Texture/rock fragments	0.50	Low	
Winnsboro-----	Moderate Texture/rock fragments	0.50	Low	
1B: Appling-----	High Texture/rock fragments	1.00	Low	
1C: Appling-----	High Texture/rock fragments	1.00	Low	
2B2: Appling-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
2C2: Appling-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
3B: Buncombe-----	High Texture/rock fragments	1.00	Low	
5A: Cartecay-----	Moderate Texture/surface depth/rock fragments	0.50	High Wetness	1.00

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire	Potential for seedling mortality		
	Rating class and limiting features	Value	Rating class and limiting features	Value
7B: Cataula-----	Moderate Texture/rock fragments	0.50	Low	
8B2: Cataula-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
8C2: Cataula-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
10B: Cecil-----	Moderate Texture/rock fragments	0.50	Low	
10C: Cecil-----	Moderate Texture/rock fragments	0.50	Low	
11B2: Cecil-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
11C2: Cecil-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
11D2: Cecil-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
12B3: Cecil-----	Low		Low	
12C3: Cecil-----	Low		Low	
13A: Chenneby-----	Moderate Texture/surface depth/rock fragments	0.50	Low	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire	Value	Potential for seedling mortality	Value
	Rating class and limiting features		Rating class and limiting features	
32B2: Hiwassee-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
32C2: Hiwassee-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
40B: Mecklenburg-----	Moderate Texture/rock fragments	0.50	Low	
41B2: Mecklenburg-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
41C2: Mecklenburg-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
41D2: Mecklenburg-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
44C2: Pacolet-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
44D2: Pacolet-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
44E2: Pacolet-----	High Texture/slope/ surface depth/ rock fragments	1.00	Low	
45D3: Pacolet-----	Low		Low	
45E3: Pacolet-----	Low		Low	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire	Value	Potential for seedling mortality	Value
	Rating class and limiting features		Rating class and limiting features	
47C2: Rion-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
47D2: Rion-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
47E2: Rion-----	High Texture/slope/ surface depth/ rock fragments	1.00	Low	
48D3: Rion-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
28B: Santuc-----	High Texture/surface depth/rock fragments	1.00	Moderate Soil reaction	0.50
28C: Santuc-----	High Texture/surface depth/rock fragments	1.00	Moderate Soil reaction	0.50
15A: Shellbluff-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
49A: Toccoa-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
50E: Udorthents-----	Moderate Texture/rock fragments	0.50	Low	
60C2: Wilkes-----	Moderate Texture/surface depth/rock fragments	0.50	Low	

Soil Survey of Newberry County, South Carolina

Table 9.—Forestland Management, Part V—Continued

Map symbol and soil name	Potential for damage to soil by fire		Potential for seedling mortality	
	Rating class and limiting features	Value	Rating class and limiting features	Value
60D2: Wilkes-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
22B: Winnsboro-----	Moderate Texture/rock fragments	0.50	Low	
22C: Winnsboro-----	Moderate Texture/rock fragments	0.50	Low	
23B2: Winnsboro-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
23C2: Winnsboro-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
23D2: Winnsboro-----	Moderate Texture/surface depth/rock fragments	0.50	Low	
24D3: Winnsboro-----	Moderate Texture/surface depth/rock fragments	0.50	Low	

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone Slope	0.98 0.50
CaB: Callison-----	Somewhat limited Depth to saturated zone Slow water movement	0.16 0.15	Somewhat limited Slow water movement Depth to saturated zone	0.15 0.08	Somewhat limited Slope Depth to saturated zone Slow water movement Depth to bedrock	0.50 0.16 0.15 0.03
CaC: Callison-----	Somewhat limited Depth to saturated zone Slow water movement Slope	0.16 0.15 0.01	Somewhat limited Slow water movement Depth to saturated zone Slope	0.15 0.08 0.01	Very limited Slope Depth to saturated zone Slow water movement Depth to bedrock	1.00 0.16 0.15 0.03
CcA: Cartecay-----	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 1.00
CdB2: Cataula-----	Somewhat limited Slow water movement	0.96	Somewhat limited Slow water movement	0.96	Somewhat limited Slow water movement Slope	0.96 0.50
CdC2: Cataula-----	Somewhat limited Slow water movement Slope	0.96 0.01	Somewhat limited Slow water movement Slope	0.96 0.01	Very limited Slope Slow water movement	1.00 0.96
CeB: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.50
CfB2: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.50
CfC2: Cecil-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CfD2: Cecil-----	Somewhat limited Slope	0.74	Somewhat limited Slope	0.74	Very limited Slope	1.00
CnA: Chenneby-----	Very limited Flooding Depth to saturated zone	1.00 0.88	Somewhat limited Depth to saturated zone Flooding	0.56 0.40	Very limited Flooding Depth to saturated zone	1.00 0.88
CyA: Chenneby-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
DaB2: Davidson-----	Not limited		Not limited		Somewhat limited Slope	0.50
GaB2: Georgeville-----	Not limited		Not limited		Somewhat limited Slope	0.50
GaC2: Georgeville-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
GnC2: Gundy-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
GnD2: Gundy-----	Somewhat limited Slope	0.74	Somewhat limited Slope	0.74	Very limited Slope	1.00
GnE2: Gundy-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
HaB: Hard Labor-----	Somewhat limited Slow water movement	0.15	Somewhat limited Slow water movement	0.15	Somewhat limited Slope Slow water movement	0.50 0.15
HaC: Hard Labor-----	Somewhat limited Slow water movement Slope	0.15 0.01	Somewhat limited Slow water movement Slope	0.15 0.01	Very limited Slope Slow water movement	1.00 0.15
HeB: Helena-----	Somewhat limited Slow water movement Depth to saturated zone	0.94 0.56	Somewhat limited Slow water movement Depth to saturated zone	0.94 0.28	Somewhat limited Slow water movement Depth to saturated zone Slope	0.94 0.56 0.50

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeC: Helena-----	Somewhat limited Slow water movement Depth to saturated zone Slope	0.94 0.56 0.01	Somewhat limited Slow water movement Depth to saturated zone Slope	0.94 0.28 0.01	Very limited Slope Slow water movement Depth to saturated zone	1.00 0.94 0.56
HwB2: Hiwassee-----	Not limited		Not limited		Somewhat limited Slope	0.50
HwD2: Hiwassee-----	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
McB: Mecklenburg-----	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement Slope	0.94 0.50
MeB2: Mecklenburg-----	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement Slope	0.94 0.50
MeC2: Mecklenburg-----	Somewhat limited Slow water movement Slope	0.94 0.01	Somewhat limited Slow water movement Slope	0.94 0.01	Very limited Slope Slow water movement	1.00 0.94
PaD2: Pacolet-----	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
PaE2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
PaF2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
PcC3: Pacolet-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
PmB: Prosperity-----	Somewhat limited Slow water movement Depth to saturated zone	0.94 0.81	Somewhat limited Slow water movement Depth to saturated zone	0.94 0.48	Somewhat limited Slow water movement Depth to saturated zone Slope Depth to bedrock	0.94 0.81 0.50 0.10

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PmB:						
Bush River-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Slow water	0.94	Slow water	0.94	Slow water	0.94
	movement		movement		movement	
	Depth to	0.56	Depth to	0.28	Depth to	0.56
	saturated zone		saturated zone		saturated zone	
					Slope	0.50
Helena-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Slow water	0.94	Slow water	0.94	Slow water	0.94
	movement		movement		movement	
	Depth to	0.56	Depth to	0.28	Depth to	0.56
	saturated zone		saturated zone		saturated zone	
					Slope	0.50
PmC:						
Prosperity-----	Somewhat limited		Somewhat limited		Very limited	
	Slow water	0.94	Slow water	0.94	Slope	1.00
	movement		movement		Slow water	0.94
	Depth to	0.81	Depth to	0.48	movement	
	saturated zone		saturated zone		Depth to	0.81
	Slope	0.01	Slope	0.01	saturated zone	
					Depth to bedrock	0.10
Bush River-----	Somewhat limited		Somewhat limited		Very limited	
	Slow water	0.94	Slow water	0.94	Slope	1.00
	movement		movement		Slow water	0.94
	Depth to	0.56	Depth to	0.28	movement	
	saturated zone		saturated zone		Depth to	0.56
	Slope	0.01	Slope	0.01	saturated zone	
Helena-----	Somewhat limited		Somewhat limited		Very limited	
	Slow water	0.94	Slow water	0.94	Slope	1.00
	movement		movement		Slow water	0.94
	Depth to	0.56	Depth to	0.28	movement	
	saturated zone		saturated zone		Depth to	0.56
	Slope	0.01	Slope	0.01	saturated zone	
RnC2:						
Rion-----	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.01	Slope	0.01	Slope	1.00
RnD2:						
Rion-----	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.63	Slope	0.63	Slope	1.00
RnE2:						
Rion-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
RnF2:						
Rion-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
SaB:						
Santuc-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.66	Too sandy	0.66	Too sandy	0.66
	Depth to	0.16	Slow water	0.15	Slope	0.50
	saturated zone		movement		Depth to	0.16
	Slow water	0.15	Depth to	0.08	saturated zone	
	movement		saturated zone		Slow water	0.15
					movement	

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SaB: Santuc-----	Somewhat limited Too sandy Depth to saturated zone Slow water movement	0.66 0.16 0.15	Somewhat limited Too sandy Slow water movement Depth to saturated zone	0.66 0.15 0.08	Somewhat limited Too sandy Slope Depth to saturated zone Slow water movement	0.66 0.50 0.16 0.15
SaC: Santuc-----	Somewhat limited Too sandy Depth to saturated zone Slow water movement Slope	0.66 0.16 0.15 0.01	Somewhat limited Too sandy Slow water movement Depth to saturated zone Slope	0.66 0.15 0.08 0.01	Very limited Slope Too sandy Depth to saturated zone Slow water movement	1.00 0.66 0.16 0.15
SeB: Sedgefield-----	Very limited Depth to saturated zone Slow water movement	1.00 0.94	Somewhat limited Depth to saturated zone Slow water movement	0.99 0.94	Very limited Depth to saturated zone Slow water movement	1.00 0.94
ShA: Shellbluff-----	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
ToA: Toccoa-----	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Not limited		Not limited		Very limited Slope	1.00
UsC: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.50
Santuc-----	Somewhat limited Too sandy Depth to saturated zone Slow water movement	0.66 0.16 0.15	Somewhat limited Too sandy Slow water movement Depth to saturated zone	0.66 0.15 0.08	Somewhat limited Too sandy Slope Depth to saturated zone Slow water movement	0.66 0.50 0.16 0.15
WnB: Winnsboro-----	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement Slope	0.94 0.50

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WoA:						
Worsham-----	Very limited		Very limited		Very limited	
	Depth to	1.00	Depth to	1.00	Depth to	1.00
	saturated zone		saturated zone		saturated zone	
	Slow water	1.00	Slow water	1.00	Slow water	1.00
	movement		movement		movement	
WwD2:						
Wynott-----	Somewhat limited		Somewhat limited		Very limited	
	Slow water	0.94	Slow water	0.94	Slope	1.00
	movement		movement		Slow water	0.94
	Slope	0.63	Slope	0.63	movement	
					Depth to bedrock	0.54
Wilkes-----	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Slope	0.63	Slope	0.63	Depth to bedrock	1.00
	Slow water	0.15	Slow water	0.15	Slow water	0.15
	movement		movement		movement	
WwE2:						
Wynott-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Slow water	0.94	Slow water	0.94	Slow water	0.94
	movement		movement		movement	
					Depth to bedrock	0.54
Wilkes-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slow water	0.15	Slow water	0.15	Slow water	0.15
	movement		movement		movement	
WyB2:						
Wynott-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Slow water	0.94	Slow water	0.94	Slow water	0.94
	movement		movement		movement	
					Depth to bedrock	0.54
					Slope	0.50
Winnsboro-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Slow water	0.94	Slow water	0.94	Slow water	0.94
	movement		movement		movement	
					Slope	0.50
Wyc2:						
Wynott-----	Somewhat limited		Somewhat limited		Very limited	
	Slow water	0.94	Slow water	0.94	Slope	1.00
	movement		movement		Slow water	0.94
	Slope	0.01	Slope	0.01	movement	
					Depth to bedrock	0.54
Winnsboro-----	Somewhat limited		Somewhat limited		Very limited	
	Slow water	0.94	Slow water	0.94	Slope	1.00
	movement		movement		Slow water	0.94
	Slope	0.01	Slope	0.01	movement	
1B:						
Appling-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.91	Too sandy	0.91	Too sandy	0.91
					Slope	0.50

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1C: Appling-----	Somewhat limited Too sandy Slope	0.91 0.37	Somewhat limited Too sandy Slope	0.91 0.37	Very limited Slope Too sandy	1.00 0.91
2B2: Appling-----	Not limited		Not limited		Somewhat limited Slope	0.50
2C2: Appling-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
3B: Buncombe-----	Very limited Flooding Too sandy	1.00 1.00	Very limited Too sandy	1.00	Very limited Too sandy	1.00
5A: Cartecay-----	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
7B: Cataula-----	Somewhat limited Slow water movement	0.96	Somewhat limited Slow water movement	0.96	Somewhat limited Slow water movement Slope	0.96 0.50
8B2: Cataula-----	Somewhat limited Slow water movement	0.96	Somewhat limited Slow water movement	0.96	Somewhat limited Slow water movement Slope	0.96 0.50
8C2: Cataula-----	Somewhat limited Slow water movement Slope	0.96 0.37	Somewhat limited Slow water movement Slope	0.96 0.37	Very limited Slope Slow water movement	1.00 0.96
10B: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.50
10C: Cecil-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
11B2: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.50
11C2: Cecil-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 10.--Recreational Development, Part I--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
11D2: Cecil-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
12B3: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.50
12C3: Cecil-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
13A: Chenneby-----	Very limited Flooding Depth to saturated zone	1.00 0.88	Somewhat limited Depth to saturated zone	0.56	Somewhat limited Depth to saturated zone Flooding	0.88 0.60
32B2: Hiwassee-----	Not limited		Not limited		Somewhat limited Slope	0.50
32C2: Hiwassee-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
40B: Mecklenburg-----	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement Slope	0.94 0.50
41B2: Mecklenburg-----	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement Slope	0.94 0.50
41C2: Mecklenburg-----	Somewhat limited Slow water movement Slope	0.94 0.37	Somewhat limited Slow water movement Slope	0.94 0.37	Very limited Slope Slow water movement	1.00 0.94
41D2: Mecklenburg-----	Very limited Slope Slow water movement	1.00 0.94	Very limited Slope Slow water movement	1.00 0.94	Very limited Slope Slow water movement	1.00 0.94
44C2: Pacolet-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
44D2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part I—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
44E2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
45D3: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
45E3: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
47C2: Rion-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
47D2: Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
47E2: Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
48D3: Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
28B: Santuc-----	Somewhat limited Too sandy Depth to saturated zone Slow water movement	0.66 0.16 0.15	Somewhat limited Too sandy Slow water movement Depth to saturated zone	0.66 0.15 0.08	Somewhat limited Too sandy Slope Depth to saturated zone Slow water movement	0.66 0.50 0.16 0.15
28C: Santuc-----	Somewhat limited Too sandy Slope Depth to saturated zone Slow water movement	0.66 0.37 0.16 0.15	Somewhat limited Too sandy Slope Slow water movement Depth to saturated zone	0.66 0.37 0.15 0.08	Very limited Slope Too sandy Depth to saturated zone Slow water movement	1.00 0.66 0.16 0.15
15A: Shellbluff-----	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
49A: Toccoa-----	Very limited Flooding	1.00	Not limited		Somewhat limited Flooding	0.60
50E: Udorthents-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 10.--Recreational Development, Part I--Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
60C2: Wilkes-----	Very limited Depth to bedrock Slope Slow water movement	1.00 0.37 0.15	Very limited Depth to bedrock Slope Slow water movement	1.00 0.37 0.15	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.15
60D2: Wilkes-----	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.15	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.15	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.15
22B: Winnsboro-----	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement Slope	0.94 0.50
22C: Winnsboro-----	Somewhat limited Slow water movement Slope	0.94 0.37	Somewhat limited Slow water movement Slope	0.94 0.37	Very limited Slope Slow water movement	1.00 0.94
23B2: Winnsboro-----	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement	0.94	Somewhat limited Slow water movement Slope	0.94 0.50
23C2: Winnsboro-----	Somewhat limited Slow water movement Slope	0.94 0.37	Somewhat limited Slow water movement Slope	0.94 0.37	Very limited Slope Slow water movement	1.00 0.94
23D2: Winnsboro-----	Very limited Slope Slow water movement	1.00 0.94	Very limited Slope Slow water movement	1.00 0.94	Very limited Slope Slow water movement	1.00 0.94
24D3: Winnsboro-----	Very limited Slope Slow water movement	1.00 0.94	Very limited Slope Slow water movement	1.00 0.94	Very limited Slope Slow water movement	1.00 0.94

Soil Survey of Newberry County, South Carolina

Table 10.--Recreational Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
CaB: Callison-----	Not limited		Not limited		Somewhat limited Depth to saturated zone Depth to bedrock	0.08 0.03
CaC: Callison-----	Not limited		Not limited		Somewhat limited Depth to saturated zone Depth to bedrock Slope	0.08 0.03 0.01
CcA: Cartecay-----	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00
CdB2: Cataula-----	Not limited		Not limited		Somewhat limited Droughty	0.24
CdC2: Cataula-----	Not limited		Not limited		Somewhat limited Droughty Slope	0.24 0.01
CeB: Cecil-----	Not limited		Not limited		Not limited	
CfB2: Cecil-----	Not limited		Not limited		Not limited	
CfC2: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.01
CfD2: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.74
CnA: Chenneby-----	Somewhat limited Flooding Depth to saturated zone	0.40 0.18	Somewhat limited Flooding Depth to saturated zone	0.40 0.18	Very limited Flooding Depth to saturated zone	1.00 0.56

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CyA: Chenneby-----	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00
DaB2: Davidson-----	Not limited		Not limited		Not limited	
GaB2: Georgeville-----	Not limited		Not limited		Not limited	
GaC2: Georgeville-----	Not limited		Not limited		Somewhat limited Slope	0.01
GnC2: Gundy-----	Not limited		Not limited		Somewhat limited Slope	0.01
GnD2: Gundy-----	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.74
GnE2: Gundy-----	Very limited Water erosion Slope	1.00 0.50	Very limited Water erosion	1.00	Very limited Slope	1.00
HaB: Hard Labor-----	Not limited		Not limited		Not limited	
HaC: Hard Labor-----	Not limited		Not limited		Somewhat limited Slope	0.01
HeB: Helena-----	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.28
HeC: Helena-----	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone Slope	0.28 0.01
HwB2: Hiwassee-----	Not limited		Not limited		Not limited	
HwD2: Hiwassee-----	Not limited		Not limited		Somewhat limited Slope	0.16
McB: Mecklenburg-----	Not limited		Not limited		Not limited	
MeB2: Mecklenburg-----	Not limited		Not limited		Not limited	

Soil Survey of Newberry County, South Carolina

Table 10.--Recreational Development, Part II--Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MeC2: Mecklenburg-----	Not limited		Not limited		Somewhat limited Slope	0.01
PaD2: Pacolet-----	Not limited		Not limited		Somewhat limited Slope	0.84
PaE2: Pacolet-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
PaF2: Pacolet-----	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
PcC3: Pacolet-----	Not limited		Not limited		Somewhat limited Slope	0.01
PmB: Prosperity-----	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone Depth to bedrock	0.48 0.10
Bush River-----	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.28
Helena-----	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.28
PmC: Prosperity-----	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone	0.11	Somewhat limited Depth to saturated zone Depth to bedrock Slope	0.48 0.10 0.01
Bush River-----	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone Slope	0.28 0.01
Helena-----	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone	0.01	Somewhat limited Depth to saturated zone Slope	0.28 0.01
RnC2: Rion-----	Not limited		Not limited		Somewhat limited Slope	0.01
RnD2: Rion-----	Not limited		Not limited		Somewhat limited Slope	0.63

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RnE2: Rion-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
RnF2: Rion-----	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
SaB: Santuc-----	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy Depth to saturated zone	0.50 0.08
SaC: Santuc-----	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy Depth to saturated zone Slope	0.50 0.08 0.01
SeB: Sedgefield-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.99
ShA: Shellbluff-----	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
ToA: Toccoa-----	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Not limited		Not limited		Not limited	
UsC: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Not limited		Not limited		Not limited	
Santuc-----	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy Depth to saturated zone	0.50 0.08
WnB: Winnsboro-----	Not limited		Not limited		Not limited	
WoA: Worsham-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WwD2:						
Wynott-----	Not limited		Not limited		Somewhat limited Slope Depth to bedrock Droughty	0.63 0.54 0.08
Wilkes-----	Not limited		Not limited		Very limited Depth to bedrock Droughty Slope	1.00 0.77 0.63
WwE2:						
Wynott-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope Depth to bedrock Droughty	1.00 0.54 0.08
Wilkes-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope Depth to bedrock Droughty	1.00 1.00 0.77
WyB2:						
Wynott-----	Not limited		Not limited		Somewhat limited Depth to bedrock Droughty	0.54 0.08
Winnsboro-----	Not limited		Not limited		Not limited	
Wyc2:						
Wynott-----	Not limited		Not limited		Somewhat limited Depth to bedrock Droughty Slope	0.54 0.08 0.01
Winnsboro-----	Not limited		Not limited		Somewhat limited Slope	0.01
1B:						
Appling-----	Somewhat limited Too sandy	0.91	Somewhat limited Too sandy	0.91	Not limited	
1C:						
Appling-----	Somewhat limited Too sandy	0.91	Somewhat limited Too sandy	0.91	Somewhat limited Slope	0.37
2B2:						
Appling-----	Not limited		Not limited		Not limited	
2C2:						
Appling-----	Not limited		Not limited		Somewhat limited Slope	0.37
3B:						
Buncombe-----	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy Droughty	1.00 0.96

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
5A: Cartecay-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
7B: Cataula-----	Not limited		Not limited		Somewhat limited Droughty	0.04
8B2: Cataula-----	Not limited		Not limited		Somewhat limited Droughty	0.11
8C2: Cataula-----	Not limited		Not limited		Somewhat limited Slope Droughty	0.37 0.11
10B: Cecil-----	Not limited		Not limited		Not limited	
10C: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.37
11B2: Cecil-----	Not limited		Not limited		Not limited	
11C2: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.37
11D2: Cecil-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
12B3: Cecil-----	Not limited		Not limited		Not limited	
12C3: Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.37
13A: Chenneby-----	Somewhat limited Depth to saturated zone	0.18	Somewhat limited Depth to saturated zone	0.18	Somewhat limited Flooding Depth to saturated zone	0.60 0.56
32B2: Hiwassee-----	Not limited		Not limited		Not limited	
32C2: Hiwassee-----	Not limited		Not limited		Somewhat limited Slope	0.37
40B: Mecklenburg-----	Not limited		Not limited		Not limited	

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41B2: Mecklenburg-----	Not limited		Not limited		Not limited	
41C2: Mecklenburg-----	Not limited		Not limited		Somewhat limited Slope	0.37
41D2: Mecklenburg-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
44C2: Pacolet-----	Not limited		Not limited		Somewhat limited Slope	0.37
44D2: Pacolet-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
44E2: Pacolet-----	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
45D3: Pacolet-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
45E3: Pacolet-----	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
47C2: Rion-----	Not limited		Not limited		Somewhat limited Slope	0.37
47D2: Rion-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
47E2: Rion-----	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
48D3: Rion-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
28B: Santuc-----	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy Depth to saturated zone	0.50 0.08
28C: Santuc-----	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy	0.66	Somewhat limited Too sandy Slope Depth to saturated zone	0.50 0.37 0.08

Soil Survey of Newberry County, South Carolina

Table 10.—Recreational Development, Part II—Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
15A: Shellbluff-----	Not limited		Not limited		Somewhat limited Flooding	0.60
49A: Toccoa-----	Not limited		Not limited		Somewhat limited Flooding	0.60
50E: Udorthents-----	Somewhat limited Slope	0.12	Not limited		Very limited Slope	1.00
60C2: Wilkes-----	Not limited		Not limited		Very limited Depth to bedrock Droughty Slope	1.00 0.77 0.37
60D2: Wilkes-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope Depth to bedrock Droughty	1.00 1.00 0.77
22B: Winnsboro-----	Not limited		Not limited		Not limited	
22C: Winnsboro-----	Not limited		Not limited		Somewhat limited Slope	0.37
23B2: Winnsboro-----	Not limited		Not limited		Not limited	
23C2: Winnsboro-----	Not limited		Not limited		Somewhat limited Slope	0.37
23D2: Winnsboro-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00
24D3: Winnsboro-----	Somewhat limited Slope	0.50	Not limited		Very limited Slope	1.00

Table 11.--Wildlife Habitat

(See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable)

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
AtB: Altavista-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
CaB: Callison-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
CaC: Callison-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
CcA: Cartecay-----	Poor	Fair	Fair	Good	Good	Fair	Poor	Fair	Good	Fair
CdB2: Cataula-----	Fair	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
CdC2: Cataula-----	Fair	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
CeB: Cecil-----	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
CfB2: Cecil-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
CfC2: Cecil-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
CfD2: Cecil-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
CnA: Chenneby-----	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Good	Fair

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name		Potential for habitat elements							Potential as habitat for--		
		Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
CyA:	Chenneby-----	Poor	Poor	Fair	Good	Good	Fair	Fair	Fair	Good	Fair
DaB2:	Davidson-----	Good	Good	Good	Good	Fair	Poor	Very poor	Good	Good	Poor
GaB2:	Georgeville-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
GaC2:	Georgeville-----	Poor	Poor	Poor	Fair	Poor	Very poor	Very poor	Poor	Fair	Very poor
GnC2:	Gundy-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
GnD2:	Gundy-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
GnE2:	Gundy-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
HaB:	Hard Labor-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
HaC:	Hard Labor-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
HeB:	Helena-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
HeC:	Helena-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
HwB2: Hiwassee-----	Fair	Fair	Fair	Fair	Fair	Poor	Very poor	Fair	Fair	Very poor
HwD2: Hiwassee-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
MCB: Mecklenburg-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
MeB2: Mecklenburg-----	Poor	Fair	Fair	Fair	Fair	Poor	Very poor	Fair	Fair	Very poor
MeC2: Mecklenburg-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
PaD2: Pacolet-----	Very poor	Poor	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor
PaE2: Pacolet-----	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
PaF2: Pacolet-----	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
PcC3: Pacolet-----	Poor	Poor	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
PmB: Prosperity-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Bush River-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Helena-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
PmC: Prosperity-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Bush River-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Helena-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
RnC2: Rion-----	Fair	Good	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
RnD2: Rion-----	Poor	Fair	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
RnE2: Rion-----	Poor	Poor	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
RnF2: Rion-----	Very poor	Poor	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
SaB: Santuc-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
SaC: Santuc-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
SeB: Sedgefield-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
ShA: Shellbluff-----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
ToA: Toccoa-----	Poor	Fair	Fair	Good	Good	Poor	Very poor	Fair	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
UcC2: Urban land.										
Cecil-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Usc: Urban land.										
Cecil-----	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Santuc-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
WnB: Winnsboro-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
WoA: Worsham-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
WwD2: Wynott-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Wilkes-----	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
WwE2: Wynott-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Wilkes-----	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
WyB2: Wynott-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Winnsboro-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
WyC2: Wynott-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Winnsboro-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
1B: Appling-----	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
1C: Appling-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
2B2: Appling-----	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
2C2: Appling-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
3B: Buncombe-----	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
5A: Cartecay-----	Fair	Good	Good	Good	Good	Fair	Poor	Good	Good	Fair
7B: Cataula-----	Fair	Fair	Good	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
8B2: Cataula-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
8C2: Cataula-----	Very poor	Poor	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
10B: Cecil-----	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
10C: Cecil-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
11B2: Cecil-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
11C2: Cecil-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
11D2: Cecil-----	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
12B3: Cecil-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
12C3: Cecil-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
13A: Chenneby-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
32B2: Hiwassee-----	Fair	Fair	Fair	Fair	Fair	Poor	Very poor	Fair	Fair	Very poor
32C2: Hiwassee-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
40B: Mecklenburg-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
41B2: Mecklenburg-----	Poor	Fair	Fair	Fair	Fair	Poor	Very poor	Fair	Fair	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
41C2: Mecklenburg-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
41D2: Mecklenburg-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
44C2: Pacolet-----	Very poor	Poor	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor
44D2: Pacolet-----	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
44E2: Pacolet-----	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
45D3: Pacolet-----	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
45E3: Pacolet-----	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
47C2: Rion-----	Poor	Fair	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
47D2: Rion-----	Poor	Poor	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
47E2: Rion-----	Very poor	Poor	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
48D3: Rion-----	Poor	Poor	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
28B: Santuc-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
28C: Santuc-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
15A: Shellbluff-----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
49A: Toccoa-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
50E: Udorthents-----	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Poor
60C2: Wilkes-----	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
60D2: Wilkes-----	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
22B: Winnsboro-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
22C: Winnsboro-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
23B2: Winnsboro-----	Poor	Fair	Fair	Fair	Fair	Poor	Very poor	Fair	Fair	Very poor
23C2: Winnsboro-----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements						Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
23D2: Winnsboro-----	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
24D3: Winnsboro-----	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Somewhat limited Depth to saturated zone	0.98	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.98
CaB: Callison-----	Somewhat limited Depth to saturated zone	0.16	Very limited Depth to saturated zone Depth to hard bedrock Depth to soft bedrock	1.00 0.84 0.03	Somewhat limited Depth to saturated zone	0.16
CaC: Callison-----	Somewhat limited Depth to saturated zone Slope	0.16 0.01	Very limited Depth to saturated zone Depth to hard bedrock Depth to soft bedrock Slope	1.00 0.84 0.03 0.01	Very limited Slope Depth to saturated zone	1.00 0.16
CcA: Cartecay-----	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
CdB2: Cataula-----	Not limited		Somewhat limited Depth to saturated zone	0.99	Not limited	
CdC2: Cataula-----	Somewhat limited Slope	0.01	Somewhat limited Depth to saturated zone Slope	0.99 0.01	Very limited Slope	1.00
CeB: Cecil-----	Not limited		Not limited		Not limited	
CfB2: Cecil-----	Not limited		Not limited		Not limited	
CfC2: Cecil-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
CfD2: Cecil-----	Somewhat limited Slope	0.74	Somewhat limited Slope	0.74	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CnA: Chenneby-----	Very limited Flooding Depth to saturated zone	1.00 0.88	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.88
CyA: Chenneby-----	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00
DaB2: Davidson-----	Not limited		Not limited		Not limited	
GaB2: Georgeville-----	Not limited		Not limited		Not limited	
GaC2: Georgeville-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
GnC2: Gundy-----	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Slope	0.01	Very limited Slope Shrink-swell	1.00 0.50
GnD2: Gundy-----	Somewhat limited Slope Shrink-swell	0.74 0.50	Somewhat limited Slope	0.74	Very limited Slope Shrink-swell	1.00 0.50
GnE2: Gundy-----	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope	1.00	Very limited Slope Shrink-swell	1.00 0.50
HaB: Hard Labor-----	Not limited		Somewhat limited Depth to saturated zone	0.73	Not limited	
HaC: Hard Labor-----	Somewhat limited Slope	0.01	Somewhat limited Depth to saturated zone Slope	0.73 0.01	Very limited Slope	1.00
HeB: Helena-----	Very limited Shrink-swell Depth to saturated zone	1.00 0.56	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Shrink-swell Depth to saturated zone	1.00 0.56
HeC: Helena-----	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.56 0.01	Very limited Depth to saturated zone Shrink-swell Slope	1.00 0.50 0.01	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.56

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HwB2: Hiwassee-----	Not limited		Not limited		Not limited	
HwD2: Hiwassee-----	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
McB: Mecklenburg-----	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
MeB2: Mecklenburg-----	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Mec2: Mecklenburg-----	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
PaD2: Pacolet-----	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
PaE2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
PaF2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
PcC3: Pacolet-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
PmB: Prosperity-----	Very limited Shrink-swell Depth to saturated zone	1.00 0.81	Very limited Depth to saturated zone Shrink-swell Depth to soft bedrock	1.00 1.00 0.10	Very limited Shrink-swell Depth to saturated zone	1.00 0.81
Bush River-----	Very limited Shrink-swell Depth to saturated zone	1.00 0.56	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.56
Helena-----	Very limited Shrink-swell Depth to saturated zone	1.00 0.56	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Shrink-swell Depth to saturated zone	1.00 0.56

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PmC:						
Prosperity-----	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.81 0.01	Very limited Depth to saturated zone Shrink-swell Depth to soft bedrock Slope	1.00 1.00 0.10 0.01	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.81
Bush River-----	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.56 0.01	Very limited Depth to saturated zone Shrink-swell Slope	1.00 1.00 0.01	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.56
Helena-----	Very limited Shrink-swell Depth to saturated zone Slope	1.00 0.56 0.01	Very limited Depth to saturated zone Shrink-swell Slope	1.00 0.50 0.01	Very limited Shrink-swell Slope Depth to saturated zone	1.00 1.00 0.56
RnC2:						
Rion-----	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
RnD2:						
Rion-----	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00
RnE2:						
Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
RnF2:						
Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
SaB:						
Santuc-----	Somewhat limited Depth to saturated zone	0.16	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.16
SaC:						
Santuc-----	Somewhat limited Depth to saturated zone Slope	0.16 0.01	Very limited Depth to saturated zone Slope	1.00 0.01	Very limited Slope Depth to saturated zone	1.00 0.16
SeB:						
Sedgefield-----	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
ShA:						
Shellbluff-----	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.99	Very limited Flooding	1.00

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ToA:						
Toccoa-----	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.82	Very limited Flooding	1.00
UcC2:						
Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Not limited		Not limited		Somewhat limited Slope	0.50
UsC:						
Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Not limited		Not limited		Not limited	
Santuc-----	Somewhat limited Depth to saturated zone	0.16	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.16
WnB:						
Winnsboro-----	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
WoA:						
Worsham-----	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 0.50
WwD2:						
Wynott-----	Very limited Shrink-swell Slope	1.00 0.63	Very limited Shrink-swell Slope Depth to soft bedrock	1.00 0.63 0.54	Very limited Slope Shrink-swell	1.00 1.00
Wilkes-----	Somewhat limited Slope Shrink-swell Depth to soft bedrock	0.63 0.50 0.50	Very limited Depth to soft bedrock Depth to hard bedrock Slope Shrink-swell	1.00 0.84 0.63 0.50	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.50
WwE2:						
Wynott-----	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell Depth to soft bedrock	1.00 1.00 0.54	Very limited Slope Shrink-swell	1.00 1.00
Wilkes-----	Very limited Slope Shrink-swell Depth to soft bedrock	1.00 0.50 0.50	Very limited Slope Depth to soft bedrock Depth to hard bedrock Shrink-swell	1.00 1.00 0.84 0.50	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.50

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WyB2: Wynott-----	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.54	Very limited Shrink-swell	1.00
Winnsboro-----	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Wyc2: Wynott-----	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Depth to soft bedrock Slope	1.00 0.54 0.01	Very limited Shrink-swell Slope	1.00 1.00
Winnsboro-----	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
1B: Appling-----	Not limited		Not limited		Not limited	
1C: Appling-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
2B2: Appling-----	Not limited		Not limited		Not limited	
2C2: Appling-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
3B: Buncombe-----	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
5A: Cartecay-----	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
7B: Cataula-----	Not limited		Somewhat limited Depth to saturated zone	0.94	Not limited	
8B2: Cataula-----	Not limited		Somewhat limited Depth to saturated zone	0.94	Not limited	
8C2: Cataula-----	Somewhat limited Slope	0.37	Somewhat limited Depth to saturated zone Slope	0.94 0.37	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10B: Cecil-----	Not limited		Not limited		Not limited	
10C: Cecil-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
11B2: Cecil-----	Not limited		Not limited		Not limited	
11C2: Cecil-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
11D2: Cecil-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
12B3: Cecil-----	Not limited		Not limited		Not limited	
12C3: Cecil-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
13A: Chenneby-----	Very limited Flooding Depth to saturated zone	1.00 0.88	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.88
32B2: Hiwassee-----	Not limited		Not limited		Not limited	
32C2: Hiwassee-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
40B: Mecklenburg-----	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
41B2: Mecklenburg-----	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
41C2: Mecklenburg-----	Somewhat limited Shrink-swell Slope	0.50 0.37	Somewhat limited Shrink-swell Slope	0.50 0.37	Very limited Slope Shrink-swell	1.00 0.50
41D2: Mecklenburg-----	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
44C2: Pacolet-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
44D2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
44E2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
45D3: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
45E3: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
47C2: Rion-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
47D2: Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
47E2: Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
48D3: Rion-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
28B: Santuc-----	Somewhat limited Depth to saturated zone	0.16	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.16
28C: Santuc-----	Somewhat limited Slope Depth to saturated zone	0.37 0.16	Very limited Depth to saturated zone Slope	1.00 0.37	Very limited Slope Depth to saturated zone	1.00 0.16
15A: Shellbluff-----	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.99	Very limited Flooding	1.00
49A: Toccoa-----	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.82	Very limited Flooding	1.00
50E: Udorthents-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
60C2: Wilkes-----	Somewhat limited Shrink-swell Depth to soft bedrock Slope	0.50 0.50 0.37	Very limited Depth to soft bedrock Depth to hard bedrock Shrink-swell Slope	1.00 0.84 0.50 0.37	Very limited Depth to soft bedrock Slope Shrink-swell	1.00 1.00 0.50
60D2: Wilkes-----	Very limited Slope Shrink-swell Depth to soft bedrock	1.00 0.50 0.50	Very limited Slope Depth to soft bedrock Depth to hard bedrock Shrink-swell	1.00 1.00 0.84 0.50	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.50
22B: Winnsboro-----	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
22C: Winnsboro-----	Very limited Shrink-swell Slope	1.00 0.37	Very limited Shrink-swell Slope	1.00 0.37	Very limited Shrink-swell Slope	1.00 1.00
23B2: Winnsboro-----	Very limited Shrink-swell	1.00	Not limited		Very limited Shrink-swell	1.00
23C2: Winnsboro-----	Very limited Shrink-swell Slope	1.00 0.37	Somewhat limited Slope	0.37	Very limited Shrink-swell Slope	1.00 1.00
23D2: Winnsboro-----	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope	1.00	Very limited Slope Shrink-swell	1.00 1.00
24D3: Winnsboro-----	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope	1.00	Very limited Slope Shrink-swell	1.00 1.00

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Somewhat limited Depth to saturated zone Low strength	0.75 0.22	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Depth to saturated zone	0.75
CaB: Callison-----	Very limited Low strength Depth to saturated zone	1.00 0.08	Very limited Depth to saturated zone Depth to hard bedrock Too clayey Cutbanks cave Depth to soft bedrock	1.00 0.84 0.66 0.10 0.03	Somewhat limited Depth to saturated zone Depth to bedrock	0.08 0.03
CaC: Callison-----	Very limited Low strength Depth to saturated zone Slope	1.00 0.08 0.01	Very limited Depth to saturated zone Depth to hard bedrock Too clayey Cutbanks cave Depth to soft bedrock	1.00 0.84 0.66 0.10 0.03	Somewhat limited Depth to saturated zone Depth to bedrock Slope	0.08 0.03 0.01
CcA: Cartecay-----	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80	Very limited Flooding Depth to saturated zone	1.00 1.00
CdB2: Cataula-----	Somewhat limited Low strength	0.10	Somewhat limited Depth to saturated zone Dense layer Cutbanks cave Too clayey	0.99 0.50 0.10 0.01	Somewhat limited Droughty	0.24
CdC2: Cataula-----	Somewhat limited Low strength Slope	0.10 0.01	Somewhat limited Depth to saturated zone Dense layer Cutbanks cave Too clayey Slope	0.99 0.50 0.10 0.01 0.01	Somewhat limited Droughty Slope	0.24 0.01

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CeB: Cecil-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.86 0.10	Not limited	
CfB2: Cecil-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.86 0.10	Not limited	
CfC2: Cecil-----	Somewhat limited Low strength Slope	0.10 0.01	Somewhat limited Too clayey Cutbanks cave Slope	0.86 0.10 0.01	Somewhat limited Slope	0.01
CfD2: Cecil-----	Somewhat limited Slope Low strength	0.74 0.10	Somewhat limited Too clayey Slope Cutbanks cave	0.86 0.74 0.10	Somewhat limited Slope	0.74
CnA: Chenneby-----	Very limited Flooding Low strength Depth to saturated zone	1.00 1.00 0.56	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.80 0.10	Very limited Flooding Depth to saturated zone	1.00 0.56
CyA: Chenneby-----	Very limited Ponding Depth to saturated zone Low strength	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Cutbanks cave	1.00 1.00 0.10	Very limited Ponding Depth to saturated zone	1.00 1.00
DaB2: Davidson-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.75 0.10	Not limited	
GaB2: Georgeville-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
GaC2: Georgeville-----	Somewhat limited Low strength Slope	0.10 0.01	Somewhat limited Too clayey Cutbanks cave Slope	0.50 0.10 0.01	Somewhat limited Slope	0.01
GnC2: Gundy-----	Very limited Low strength Shrink-swell Slope	1.00 0.50 0.01	Somewhat limited Too clayey Cutbanks cave Slope	0.12 0.10 0.01	Somewhat limited Slope	0.01

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GnD2: Gundy-----	Very limited Low strength Slope Shrink-swell	1.00 0.74 0.50	Somewhat limited Slope Too clayey Cutbanks cave	0.74 0.12 0.10	Somewhat limited Slope	0.74
GnE2: Gundy-----	Very limited Slope Low strength Shrink-swell	1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	1.00 0.12 0.10	Very limited Slope	1.00
HaB: Hard Labor-----	Somewhat limited Low strength	0.10	Somewhat limited Depth to saturated zone Too clayey Cutbanks cave	0.73 0.28 0.10	Not limited	
HaC: Hard Labor-----	Somewhat limited Low strength Slope	0.10 0.01	Somewhat limited Depth to saturated zone Too clayey Cutbanks cave Slope	0.73 0.28 0.10 0.01	Somewhat limited Slope	0.01
HeB: Helena-----	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 0.28	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.49 0.10	Somewhat limited Depth to saturated zone	0.28
HeC: Helena-----	Very limited Shrink-swell Low strength Depth to saturated zone Slope	1.00 1.00 0.28 0.01	Very limited Depth to saturated zone Too clayey Cutbanks cave Slope	1.00 0.49 0.10 0.01	Somewhat limited Depth to saturated zone Slope	0.28 0.01
HwB2: Hiwassee-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	
HwD2: Hiwassee-----	Somewhat limited Slope Low strength	0.16 0.10	Somewhat limited Too clayey Slope Cutbanks cave	0.28 0.16 0.10	Somewhat limited Slope	0.16
McB: Mecklenburg-----	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MeB2: Mecklenburg-----	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
MeC2: Mecklenburg-----	Very limited Low strength Shrink-swell Slope	1.00 0.50 0.01	Somewhat limited Too clayey Cutbanks cave Slope	0.50 0.10 0.01	Somewhat limited Slope	0.01
PaD2: Pacolet-----	Somewhat limited Slope Low strength	0.84 0.10	Somewhat limited Slope Too clayey Cutbanks cave	0.84 0.50 0.10	Somewhat limited Slope	0.84
PaE2: Pacolet-----	Very limited Slope Low strength	1.00 0.10	Very limited Slope Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Slope	1.00
PaF2: Pacolet-----	Very limited Slope Low strength	1.00 0.10	Very limited Slope Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Slope	1.00
PcC3: Pacolet-----	Somewhat limited Low strength Slope	0.10 0.01	Somewhat limited Too clayey Cutbanks cave Slope	0.50 0.10 0.01	Somewhat limited Slope	0.01
PmB: Prosperity-----	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 0.48	Very limited Depth to saturated zone Too clayey Cutbanks cave Depth to soft bedrock	1.00 0.14 0.10 0.10	Somewhat limited Depth to saturated zone Depth to bedrock	0.48 0.10
Bush River-----	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 0.28	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.14 0.10	Somewhat limited Depth to saturated zone	0.28
Helena-----	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 0.28	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.49 0.10	Somewhat limited Depth to saturated zone	0.28

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PmC: Prosperity-----	Very limited Shrink-swell Low strength Depth to saturated zone Slope	1.00 1.00 0.48 0.01	Very limited Depth to saturated zone Too clayey Cutbanks cave Depth to soft bedrock Slope	1.00 0.14 0.10 0.10 0.01	Somewhat limited Depth to saturated zone Depth to bedrock Slope	0.48 0.10 0.01
Bush River-----	Very limited Shrink-swell Low strength Depth to saturated zone Slope	1.00 1.00 0.28 0.01	Very limited Depth to saturated zone Too clayey Cutbanks cave Slope	1.00 0.14 0.10 0.01	Somewhat limited Depth to saturated zone Slope	0.28 0.01
Helena-----	Very limited Shrink-swell Low strength Depth to saturated zone Slope	1.00 1.00 0.28 0.01	Very limited Depth to saturated zone Too clayey Cutbanks cave Slope	1.00 0.49 0.10 0.01	Somewhat limited Depth to saturated zone Slope	0.28 0.01
RnC2: Rion-----	Somewhat limited Low strength Slope	0.22 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01
RnD2: Rion-----	Somewhat limited Slope Low strength	0.63 0.22	Somewhat limited Slope Cutbanks cave	0.63 0.10	Somewhat limited Slope	0.63
RnE2: Rion-----	Very limited Slope Low strength	1.00 0.22	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
RnF2: Rion-----	Very limited Slope Low strength	1.00 0.22	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
SaB: Santuc-----	Somewhat limited Depth to saturated zone	0.08	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Too sandy Depth to saturated zone	0.50 0.08
SaC: Santuc-----	Somewhat limited Depth to saturated zone Slope	0.08 0.01	Very limited Depth to saturated zone Cutbanks cave Slope	1.00 0.10 0.01	Somewhat limited Too sandy Depth to saturated zone Slope	0.50 0.08 0.01

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SeB: Sedgefield-----	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.99	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.28 0.10	Somewhat limited Depth to saturated zone	0.99
ShA: Shellbluff-----	Very limited Flooding Low strength	1.00 1.00	Somewhat limited Depth to saturated zone Flooding Cutbanks cave	0.99 0.80 0.10	Very limited Flooding	1.00
ToA: Toccoa-----	Very limited Flooding	1.00	Somewhat limited Depth to saturated zone Flooding Cutbanks cave	0.82 0.80 0.10	Very limited Flooding	1.00
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.86 0.10	Not limited	
UsC: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.86 0.10	Not limited	
Santuc-----	Somewhat limited Depth to saturated zone	0.08	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Too sandy Depth to saturated zone	0.50 0.08
WnB: Winnsboro-----	Very limited Shrink-swell Low strength	1.00 1.00	Somewhat limited Too clayey Cutbanks cave	0.64 0.10	Not limited	
WoA: Worsham-----	Very limited Depth to saturated zone Low strength Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.12 0.10	Very limited Depth to saturated zone	1.00
WwD2: Wynott-----	Very limited Shrink-swell Low strength Slope	1.00 1.00 0.63	Somewhat limited Slope Depth to soft bedrock Too clayey Cutbanks cave	0.63 0.54 0.50 0.10	Somewhat limited Slope Depth to bedrock Droughty	0.63 0.54 0.08

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WwD2: Wilkes-----	Somewhat limited		Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
	Low strength	0.78	Depth to hard bedrock	0.84	Droughty	0.77
	Slope	0.63			Slope	0.63
	Shrink-swell	0.50	Slope	0.63		
WwE2: Wynott-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	1.00	Depth to soft bedrock	0.54	Depth to bedrock	0.54
	Low strength	1.00	Too clayey	0.50	Droughty	0.08
			Cutbanks cave	0.10		
Wilkes-----	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
	Depth to soft bedrock	1.00	Slope	1.00	Depth to bedrock	1.00
	Low strength	0.78	Depth to hard bedrock	0.84	Droughty	0.77
	Shrink-swell	0.50				
WyB2: Wynott-----	Very limited		Somewhat limited		Somewhat limited	
	Shrink-swell	1.00	Depth to soft bedrock	0.54	Depth to bedrock	0.54
	Low strength	1.00	Too clayey	0.50	Droughty	0.08
			Cutbanks cave	0.10		
Winnsboro-----	Very limited		Somewhat limited		Not limited	
	Shrink-swell	1.00	Too clayey	0.64		
	Low strength	1.00				
Wyc2: Wynott-----	Very limited		Somewhat limited		Somewhat limited	
	Shrink-swell	1.00	Depth to soft bedrock	0.54	Depth to bedrock	0.54
	Low strength	1.00	Too clayey	0.50	Droughty	0.08
	Slope	0.01	Cutbanks cave	0.10	Slope	0.01
			Slope	0.01		
Winnsboro-----	Very limited		Somewhat limited		Somewhat limited	
	Shrink-swell	1.00	Too clayey	0.64	Slope	0.01
	Low strength	1.00	Slope	0.01		
	Slope	0.01				
1B: Appling-----	Somewhat limited		Somewhat limited		Not limited	
	Low strength	0.10	Too clayey	0.86		
			Cutbanks cave	0.10		
1C: Appling-----	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.37	Too clayey	0.86	Slope	0.37
	Low strength	0.10	Slope	0.37		
			Cutbanks cave	0.10		

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
2B2: Appling-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.86 0.10	Not limited	
2C2: Appling-----	Somewhat limited Slope Low strength	0.37 0.10	Somewhat limited Too clayey Slope Cutbanks cave	0.86 0.37 0.10	Somewhat limited Slope	0.37
3B: Buncombe-----	Somewhat limited Flooding	0.40	Very limited Cutbanks cave	1.00	Very limited Too sandy Droughty	1.00 0.96
5A: Cartecay-----	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.60	Very limited Depth to saturated zone Flooding	1.00 0.60
7B: Cataula-----	Somewhat limited Low strength	0.10	Somewhat limited Depth to saturated zone Too clayey Dense layer Cutbanks cave	0.94 0.72 0.50 0.10	Somewhat limited Droughty	0.04
8B2: Cataula-----	Somewhat limited Low strength	0.10	Somewhat limited Depth to saturated zone Too clayey Dense layer Cutbanks cave	0.94 0.72 0.50 0.10	Somewhat limited Droughty	0.11
8C2: Cataula-----	Somewhat limited Slope Low strength	0.37 0.10	Somewhat limited Depth to saturated zone Too clayey Dense layer Slope Cutbanks cave	0.94 0.72 0.50 0.37 0.10	Somewhat limited Slope Droughty	0.37 0.11
10B: Cecil-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
10C: Cecil-----	Somewhat limited Slope Low strength	0.37 0.10	Somewhat limited Too clayey Slope Cutbanks cave	0.50 0.37 0.10	Somewhat limited Slope	0.37

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
11B2: Cecil-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
11C2: Cecil-----	Somewhat limited Slope Low strength	0.37 0.10	Somewhat limited Too clayey Slope Cutbanks cave	0.50 0.37 0.10	Somewhat limited Slope	0.37
11D2: Cecil-----	Very limited Slope Low strength	1.00 0.10	Very limited Slope Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Slope	1.00
12B3: Cecil-----	Somewhat limited Low strength	0.10	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
12C3: Cecil-----	Somewhat limited Slope Low strength	0.37 0.10	Somewhat limited Too clayey Slope Cutbanks cave	0.50 0.37 0.10	Somewhat limited Slope	0.37
13A: Chenneby-----	Very limited Flooding Low strength Depth to saturated zone	1.00 1.00 0.56	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Somewhat limited Flooding Depth to saturated zone	0.60 0.56
32B2: Hiwassee-----	Somewhat limited Low strength	0.10	Very limited Too clayey Cutbanks cave	1.00 0.10	Not limited	
32C2: Hiwassee-----	Somewhat limited Slope Low strength	0.37 0.10	Very limited Too clayey Slope Cutbanks cave	1.00 0.37 0.10	Somewhat limited Slope	0.37
40B: Mecklenburg-----	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
41B2: Mecklenburg-----	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
41C2: Mecklenburg-----	Very limited Low strength Shrink-swell Slope	1.00 0.50 0.37	Somewhat limited Too clayey Slope Cutbanks cave	0.50 0.37 0.10	Somewhat limited Slope	0.37

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41D2: Mecklenburg-----	Very limited Slope Low strength Shrink-swell	1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Slope	1.00
44C2: Pacolet-----	Somewhat limited Slope Low strength	0.37 0.10	Somewhat limited Slope Cutbanks cave	0.37 0.10	Somewhat limited Slope	0.37
44D2: Pacolet-----	Very limited Slope Low strength	1.00 0.10	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
44E2: Pacolet-----	Very limited Slope Low strength	1.00 0.10	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
45D3: Pacolet-----	Very limited Slope Low strength	1.00 0.10	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
45E3: Pacolet-----	Very limited Slope Low strength	1.00 0.10	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
47C2: Rion-----	Somewhat limited Slope	0.37	Somewhat limited Slope Cutbanks cave	0.37 0.10	Somewhat limited Slope	0.37
47D2: Rion-----	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
47E2: Rion-----	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
48D3: Rion-----	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
28B: Santuc-----	Somewhat limited Depth to saturated zone	0.08	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Too sandy Depth to saturated zone	0.50 0.08

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
28C: Santuc-----	Somewhat limited Slope Depth to saturated zone	0.37 0.08	Very limited Depth to saturated zone Slope Cutbanks cave	1.00 0.37 0.10	Somewhat limited Too sandy Slope Depth to saturated zone	0.50 0.37 0.08
15A: Shellbluff-----	Very limited Flooding Low strength	1.00 1.00	Somewhat limited Depth to saturated zone Flooding Cutbanks cave	0.99 0.60 0.10	Somewhat limited Flooding	0.60
49A: Toccoa-----	Very limited Flooding	1.00	Somewhat limited Depth to saturated zone Flooding Cutbanks cave	0.82 0.60 0.10	Somewhat limited Flooding	0.60
50E: Udorthents-----	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
60C2: Wilkes-----	Somewhat limited Depth to soft bedrock Low strength Shrink-swell Slope	1.00 0.78 0.50 0.37	Very limited Depth to soft bedrock Depth to hard bedrock Slope	1.00 0.84 0.37	Very limited Depth to bedrock Droughty Slope	1.00 0.77 0.37
60D2: Wilkes-----	Very limited Slope Depth to soft bedrock Low strength Shrink-swell	1.00 1.00 0.78 0.50	Very limited Depth to soft bedrock Slope Depth to hard bedrock	1.00 1.00 0.84	Very limited Slope Depth to bedrock Droughty	1.00 1.00 0.77
22B: Winnsboro-----	Very limited Shrink-swell Low strength	1.00 1.00	Somewhat limited Too clayey Cutbanks cave	0.32 0.10	Not limited	
22C: Winnsboro-----	Very limited Shrink-swell Low strength Slope	1.00 1.00 0.37	Somewhat limited Slope Too clayey Cutbanks cave	0.37 0.32 0.10	Somewhat limited Slope	0.37
23B2: Winnsboro-----	Very limited Shrink-swell Low strength	1.00 1.00	Somewhat limited Too clayey Cutbanks cave	0.32 0.10	Not limited	

Soil Survey of Newberry County, South Carolina

Table 12.—Building Site Development, Part II—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23C2: Winnsboro-----	Very limited Shrink-swell Low strength Slope	 1.00 1.00 0.37	Somewhat limited Slope Too clayey Cutbanks cave	 0.37 0.32 0.10	Somewhat limited Slope	 0.37
23D2: Winnsboro-----	Very limited Slope Shrink-swell Low strength	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 0.32 0.10	Very limited Slope	 1.00
24D3: Winnsboro-----	Very limited Slope Shrink-swell Low strength	 1.00 1.00 1.00	Very limited Slope Too clayey Cutbanks cave	 1.00 0.32 0.10	Very limited Slope	 1.00

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.50	Seepage Slope	1.00 0.32
CaB: Callison-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to soft bedrock	1.00
	Slow water movement	1.00	Depth to hard bedrock	0.84
	Depth to bedrock	1.00	Depth to saturated zone	0.56
			Slope	0.32
CaC: Callison-----	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to soft bedrock	1.00
	Slow water movement	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to hard bedrock	0.84
	Slope	0.01	Depth to saturated zone	0.56
CcA: Cartecay-----	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Seepage, bottom layer	1.00	Depth to saturated zone	1.00
CdB2: Cataula-----	Very limited		Somewhat limited	
	Slow water movement	1.00	Slope	0.32
	Depth to saturated zone	1.00	Depth to saturated zone	0.04
CdC2: Cataula-----	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.04
	Slope	0.01		
CeB: Cecil-----	Somewhat limited		Somewhat limited	
	Slow water movement	0.50	Seepage Slope	0.50 0.32

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CfB2: Cecil-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
CfC2: Cecil-----	Somewhat limited Slow water movement Slope	0.50 0.01	Very limited Slope Seepage	1.00 0.50
CfD2: Cecil-----	Somewhat limited Slope Slow water movement	0.74 0.50	Very limited Slope Seepage	1.00 0.50
CnA: Chenneby-----	Very limited Flooding Depth to saturated zone Slow water movement	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.50
CyA: Chenneby-----	Very limited Ponding Depth to saturated zone Slow water movement	1.00 1.00 0.50	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00 0.50
DaB2: Davidson-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
GaB2: Georgeville-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
GaC2: Georgeville-----	Somewhat limited Slow water movement Slope	0.50 0.01	Very limited Slope Seepage	1.00 0.50
GnC2: Gundy-----	Somewhat limited Depth to bedrock Slow water movement Slope	0.69 0.50 0.01	Very limited Slope Seepage Depth to soft bedrock	1.00 0.50 0.26

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
GnD2: Gundy-----	Somewhat limited Slope Depth to bedrock Slow water movement	0.74 0.69 0.50	Very limited Slope Seepage Depth to soft bedrock	1.00 0.50 0.26
GnE2: Gundy-----	Very limited Slope Depth to bedrock Slow water movement	1.00 0.69 0.50	Very limited Slope Seepage Depth to soft bedrock	1.00 0.50 0.26
HaB: Hard Labor-----	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Seepage Slope	0.50 0.32
HaC: Hard Labor-----	Very limited Slow water movement Depth to saturated zone Slope	1.00 1.00 0.01	Very limited Slope Seepage	1.00 0.50
HeB: Helena-----	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Slope	0.83 0.32
HeC: Helena-----	Very limited Slow water movement Depth to saturated zone Slope	1.00 1.00 0.01	Very limited Slope Depth to saturated zone	1.00 0.83
HwB2: Hiwassee-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
HwD2: Hiwassee-----	Somewhat limited Slow water movement Slope	0.50 0.16	Very limited Slope Seepage	1.00 0.50
McB: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Seepage Slope	0.50 0.32

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
MeB2: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Seepage Slope	0.50 0.32
MeC2: Mecklenburg-----	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.50
PaD2: Pacolet-----	Somewhat limited Slope Slow water movement	0.84 0.50	Very limited Slope Seepage	1.00 0.50
PaE2: Pacolet-----	Very limited Slope Slow water movement	1.00 0.50	Very limited Slope Seepage	1.00 0.50
PaF2: Pacolet-----	Very limited Slope Slow water movement	1.00 0.50	Very limited Slope Seepage	1.00 0.50
PcC3: Pacolet-----	Somewhat limited Slow water movement Slope	0.50 0.01	Very limited Slope Seepage	1.00 0.50
PmB: Prosperity-----	Very limited Slow water movement Depth to saturated zone Depth to bedrock	1.00 1.00 1.00	Very limited Depth to soft bedrock Depth to saturated zone Slope	1.00 0.94 0.32
Bush River-----	Very limited Slow water movement Depth to saturated zone Depth to bedrock	1.00 1.00 0.91	Somewhat limited Depth to saturated zone Depth to soft bedrock Slope	0.83 0.77 0.32
Helena-----	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Slope	0.83 0.32

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
PmC:				
Prosperity-----	Very limited		Very limited	
	Slow water	1.00	Depth to soft	1.00
	movement		bedrock	
	Depth to	1.00	Slope	1.00
	saturated zone		Depth to	0.94
	Depth to bedrock	1.00	saturated zone	
	Slope	0.01		
Bush River-----	Very limited		Very limited	
	Slow water	1.00	Slope	1.00
	movement		Depth to	0.83
	Depth to	1.00	saturated zone	
	saturated zone		Depth to soft	0.77
	Depth to bedrock	0.91	bedrock	
	Slope	0.01		
Helena-----	Very limited		Very limited	
	Slow water	1.00	Slope	1.00
	movement		Depth to	0.83
	Depth to	1.00	saturated zone	
	saturated zone			
	Slope	0.01		
RnC2:				
Rion-----	Very limited		Very limited	
	Seepage, bottom	1.00	Seepage	1.00
	layer		Slope	1.00
	Slow water	0.50		
	movement			
	Slope	0.01		
RnD2:				
Rion-----	Very limited		Very limited	
	Seepage, bottom	1.00	Slope	1.00
	layer		Seepage	1.00
	Slope	0.63		
	Slow water	0.50		
	movement			
RnE2:				
Rion-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom	1.00	Seepage	1.00
	layer			
	Slow water	0.50		
	movement			
RnF2:				
Rion-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom	1.00	Seepage	1.00
	layer			
	Slow water	0.50		
	movement			

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
SaB: Santuc-----	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Somewhat limited Depth to saturated zone Seepage Slope	0.56 0.50 0.32
SaC: Santuc-----	Very limited Depth to saturated zone Slow water movement Slope	1.00 1.00 0.01	Very limited Slope Depth to saturated zone Seepage	1.00 0.56 0.50
SeB: Sedgefield-----	Very limited Slow water movement Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00
ShA: Shellbluff-----	Very limited Flooding Depth to saturated zone Slow water movement	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.50
ToA: Toccoa-----	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 0.99
UcC2: Urban land-----	Not rated		Not rated	
Cecil-----	Somewhat limited Slow water movement	0.50	Somewhat limited Slope Seepage	0.92 0.5
UsC: Urban land-----	Not rated		Not rated	
Cecil-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
Santuc-----	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Somewhat limited Depth to saturated zone Seepage Slope	0.56 0.50 0.32

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WnB: Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 0.99	Somewhat limited Depth to soft bedrock Slope	0.99 0.32
WoA: Worsham-----	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
WwD2: Wynott-----	Very limited Slow water movement Depth to bedrock Slope	1.00 1.00 0.63	Very limited Depth to soft bedrock Slope	1.00 1.00
Wilkes-----	Very limited Depth to bedrock Slope	1.00 0.63	Very limited Depth to soft bedrock Slope Depth to hard bedrock Seepage	1.00 1.00 0.84 0.50
WwE2: Wynott-----	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00
Wilkes-----	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope Depth to hard bedrock Seepage	1.00 1.00 0.84 0.50
WyB2: Wynott-----	Very limited Slow water movement Depth to bedrock	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 0.32
Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 0.69	Somewhat limited Slope Depth to soft bedrock	0.32 0.26
Wyc2: Wynott-----	Very limited Slow water movement Depth to bedrock Slope	1.00 1.00 0.01	Very limited Depth to soft bedrock Slope	1.00 1.00

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WyC2: Winnsboro-----	Very limited Slow water movement Depth to bedrock Slope	1.00 0.69 0.01	Very limited Slope Depth to soft bedrock	1.00 0.26
1B: Appling-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
1C: Appling-----	Somewhat limited Slow water movement Slope	0.50 0.37	Very limited Slope Seepage	1.00 0.50
2B2: Appling-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
2C2: Appling-----	Somewhat limited Slow water movement Slope	0.50 0.37	Very limited Slope Seepage	1.00 0.50
3B: Buncombe-----	Very limited Seepage, bottom layer Filtering capacity Flooding	1.00 1.00 0.40	Very limited Seepage Flooding	1.00 0.40
5A: Cartecay-----	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
7B: Cataula-----	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slope	0.32
8B2: Cataula-----	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slope	0.32

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
8C2: Cataula-----	Very limited Slow water movement Depth to saturated zone Slope	1.00 1.00 0.37	Very limited Slope	1.00
10B: Cecil-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
10C: Cecil-----	Somewhat limited Slow water movement Slope	0.50 0.37	Very limited Slope Seepage	1.00 0.50
11B2: Cecil-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
11C2: Cecil-----	Somewhat limited Slow water movement Slope	0.50 0.37	Very limited Slope Seepage	1.00 0.50
11D2: Cecil-----	Very limited Slope Slow water movement	1.00 0.50	Very limited Slope Seepage	1.00 0.50
12B3: Cecil-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32
12C3: Cecil-----	Somewhat limited Slow water movement Slope	0.50 0.37	Very limited Slope Seepage	1.00 0.50
13A: Chenneby-----	Very limited Flooding Depth to saturated zone Slow water movement	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.50
32B2: Hiwassee-----	Somewhat limited Slow water movement	0.50	Somewhat limited Seepage Slope	0.50 0.32

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
32C2: Hiwassee-----	Somewhat limited Slow water movement Slope	0.50 0.37	Very limited Slope Seepage	1.00 0.50
40B: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Seepage Slope	0.50 0.32
41B2: Mecklenburg-----	Very limited Slow water movement	1.00	Somewhat limited Seepage Slope	0.50 0.32
41C2: Mecklenburg-----	Very limited Slow water movement Slope	1.00 0.37	Very limited Slope Seepage	1.00 0.50
41D2: Mecklenburg-----	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50
44C2: Pacolet-----	Somewhat limited Slow water movement Slope	0.50 0.37	Very limited Slope Seepage	1.00 0.50
44D2: Pacolet-----	Very limited Slope Slow water movement	1.00 0.50	Very limited Slope Seepage	1.00 0.50
44E2: Pacolet-----	Very limited Slope Slow water movement	1.00 0.50	Very limited Slope Seepage	1.00 0.50
45D3: Pacolet-----	Very limited Slope Slow water movement	1.00 0.50	Very limited Slope Seepage	1.00 0.50
45E3: Pacolet-----	Very limited Slope Slow water movement	1.00 0.50	Very limited Slope Seepage	1.00 0.50

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
47C2: Rion-----	Very limited Seepage, bottom layer Slow water movement Slope	1.00 0.50 0.37	Very limited Slope Seepage	1.00 1.00
47D2: Rion-----	Very limited Slope Seepage, bottom layer Slow water movement	1.00 1.00 0.50	Very limited Slope Seepage	1.00 1.00
47E2: Rion-----	Very limited Slope Seepage, bottom layer Slow water movement	1.00 1.00 0.50	Very limited Slope Seepage	1.00 1.00
48D3: Rion-----	Very limited Slope Seepage, bottom layer Slow water movement	1.00 1.00 0.50	Very limited Slope Seepage	1.00 1.00
28B: Santuc-----	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Somewhat limited Depth to saturated zone Seepage Slope	0.56 0.50 0.32
28C: Santuc-----	Very limited Depth to saturated zone Slow water movement Slope	1.00 1.00 0.37	Very limited Slope Depth to saturated zone Seepage	1.00 0.56 0.50
15A: Shellbluff-----	Very limited Flooding Depth to saturated zone Slow water movement	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.50

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
49A: Toccoa-----	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 0.99
50E: Udorthents-----	Very limited Slope Slow water movement	1.00 0.99	Very limited Slope Seepage	1.00 0.01
60C2: Wilkes-----	Very limited Depth to bedrock Slope	1.00 0.37	Very limited Depth to soft bedrock Slope Depth to hard bedrock Seepage	1.00 1.00 0.84 0.50
60D2: Wilkes-----	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope Depth to hard bedrock Seepage	1.00 1.00 0.84 0.50
22B: Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 0.99	Somewhat limited Depth to soft bedrock Slope	0.99 0.32
22C: Winnsboro-----	Very limited Slow water movement Depth to bedrock Slope	1.00 0.99 0.37	Very limited Slope Depth to soft bedrock	1.00 0.99
23B2: Winnsboro-----	Very limited Slow water movement Depth to bedrock	1.00 0.69	Somewhat limited Slope Depth to soft bedrock	0.32 0.26
23C2: Winnsboro-----	Very limited Slow water movement Depth to bedrock Slope	1.00 0.69 0.37	Very limited Slope Depth to soft bedrock	1.00 0.26

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part I—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
23D2: Winnsboro-----	Very limited Slow water movement Slope Depth to bedrock	1.00 1.00 0.69	Very limited Slope Depth to soft bedrock	1.00 0.26
24D3: Winnsboro-----	Very limited Slow water movement Slope Depth to bedrock	1.00 1.00 0.69	Very limited Slope Depth to soft bedrock	1.00 0.26

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	0.99
CaB: Callison-----	Very limited Depth to bedrock Depth to saturated zone Too clayey	1.00 0.98 0.50	Very limited Depth to bedrock Depth to saturated zone	1.00 0.56	Very limited Depth to bedrock Depth to saturated zone Too clayey	1.00 0.76 0.50
CaC: Callison-----	Very limited Depth to bedrock Depth to saturated zone Too clayey Slope	1.00 0.98 0.50 0.01	Very limited Depth to bedrock Depth to saturated zone Slope	1.00 0.56 0.01	Very limited Depth to bedrock Depth to saturated zone Too clayey Slope	1.00 0.76 0.50 0.01
CcA: Cartecay-----	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 0.50
CdB2: Cataula-----	Somewhat limited Depth to saturated zone Too clayey	0.68 0.50	Somewhat limited Depth to saturated zone	0.04	Somewhat limited Too clayey Hard to compact Depth to saturated zone	0.50 0.50 0.24
CdC2: Cataula-----	Somewhat limited Depth to saturated zone Too clayey Slope	0.68 0.50 0.01	Somewhat limited Depth to saturated zone Slope	0.04 0.01	Somewhat limited Too clayey Hard to compact Depth to saturated zone Slope	0.50 0.50 0.24 0.01
CeB: Cecil-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
CfB2: Cecil-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CfC2: Cecil-----	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.01
CfD2: Cecil-----	Somewhat limited Slope Too clayey	0.74 0.50	Somewhat limited Slope	0.74	Somewhat limited Slope Too clayey Hard to compact	0.74 0.50 0.50
CnA: Chenneby-----	Very limited Flooding Depth to saturated zone Too clayey	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Too clayey	0.98 0.50
CyA: Chenneby-----	Very limited Depth to saturated zone Ponding Too clayey	1.00 1.00 0.50	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone Too clayey	1.00 1.00 0.50
DaB2: Davidson-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
GaB2: Georgeville-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
GaC2: Georgeville-----	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.01
GnC2: Gundy-----	Very limited Depth to bedrock Too clayey Slope	1.00 0.50 0.01	Somewhat limited Depth to bedrock Slope	0.26 0.01	Somewhat limited Too clayey Depth to bedrock Gravel content Slope	0.50 0.26 0.03 0.01
GnD2: Gundy-----	Very limited Depth to bedrock Slope Too clayey	1.00 0.74 0.50	Somewhat limited Slope Depth to bedrock	0.74 0.26	Somewhat limited Slope Too clayey Depth to bedrock Gravel content	0.74 0.50 0.26 0.03
GnE2: Gundy-----	Very limited Slope Depth to bedrock Too clayey	1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 0.26	Very limited Slope Too clayey Depth to bedrock Gravel content	1.00 0.50 0.26 0.03

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HaB: Hard Labor-----	Somewhat limited Too clayey Depth to saturated zone	0.50 0.02	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
HaC: Hard Labor-----	Somewhat limited Too clayey Depth to saturated zone Slope	0.50 0.02 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.01
HeB: Helena-----	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.83	Very limited Too clayey Depth to saturated zone	1.00 0.91
HeC: Helena-----	Very limited Depth to saturated zone Slope	1.00 0.01	Somewhat limited Depth to saturated zone Slope	0.83 0.01	Very limited Too clayey Depth to saturated zone Slope	1.00 0.91 0.01
HwB2: Hiwassee-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
HwD2: Hiwassee-----	Somewhat limited Too clayey Slope	0.50 0.16	Somewhat limited Slope	0.16	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.16
McB: Mecklenburg-----	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
MeB2: Mecklenburg-----	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
Mec2: Mecklenburg-----	Very limited Too clayey Slope	1.00 0.01	Somewhat limited Slope	0.01	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.01
PaD2: Pacolet-----	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84
PaE2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PaF2: Pacolet-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
PcC3: Pacolet-----	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
PmB: Prosperity-----	Very limited Depth to saturated zone Depth to bedrock Too clayey	1.00 1.00 1.00	Very limited Depth to bedrock Depth to saturated zone	1.00 0.94	Very limited Too clayey Hard to compact Depth to bedrock Depth to saturated zone	1.00 1.00 1.00 0.96
Bush River-----	Very limited Depth to saturated zone Depth to bedrock Too clayey	1.00 1.00 1.00	Somewhat limited Depth to saturated zone Depth to bedrock	0.83 0.77	Very limited Too clayey Hard to compact Depth to saturated zone Depth to bedrock	1.00 1.00 0.91 0.77
Helena-----	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.83	Very limited Too clayey Depth to saturated zone	1.00 0.91
PmC: Prosperity-----	Very limited Depth to saturated zone Depth to bedrock Too clayey Slope	1.00 1.00 1.00 1.00 0.01	Very limited Depth to bedrock Depth to saturated zone Slope	1.00 0.94 0.01	Very limited Too clayey Hard to compact Depth to bedrock Depth to saturated zone Slope	1.00 1.00 1.00 0.96 0.01
Bush River-----	Very limited Depth to saturated zone Depth to bedrock Too clayey Slope	1.00 1.00 1.00 1.00 0.01	Somewhat limited Depth to saturated zone Depth to bedrock Slope	0.83 0.77 0.01	Very limited Too clayey Hard to compact Depth to saturated zone Depth to bedrock Slope	1.00 1.00 0.91 0.77 0.01
Helena-----	Very limited Depth to saturated zone Slope	1.00 0.01	Somewhat limited Depth to saturated zone Slope	0.83 0.01	Very limited Too clayey Depth to saturated zone Slope	1.00 0.91 0.01
RnC2: Rion-----	Very limited Seepage, bottom layer Slope	1.00 0.01	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage Slope	0.50 0.01

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RnD2: Rion-----	Very limited Seepage, bottom layer Slope	1.00 0.63	Very limited Seepage Slope	1.00 0.63	Somewhat limited Slope Seepage	0.63 0.50
RnE2: Rion-----	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage	1.00 0.50
RnF2: Rion-----	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage	1.00 0.50
SaB: Santuc-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.56	Somewhat limited Depth to saturated zone	0.76
SaC: Santuc-----	Somewhat limited Depth to saturated zone Slope	0.98 0.01	Somewhat limited Depth to saturated zone Slope	0.56 0.01	Somewhat limited Depth to saturated zone Slope	0.76 0.01
SeB: Sedgefield-----	Very limited Depth to saturated zone Seepage, bottom layer	1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 0.50
ShA: Shellbluff-----	Very limited Flooding Depth to saturated zone Too clayey	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 1.00	Somewhat limited Too clayey Depth to saturated zone	0.50 0.32
ToA: Toccoa-----	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Seepage	0.50
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
UsC:						
Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
Santuc-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.56	Somewhat limited Depth to saturated zone	0.76
WnB:						
Winnsboro-----	Very limited Depth to bedrock Too clayey	1.00 1.00	Somewhat limited Depth to bedrock	0.99	Very limited Too clayey Hard to compact Depth to bedrock	1.00 1.00 0.99
WoA:						
Worsham-----	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00
WwD2:						
Wynott-----	Very limited Depth to bedrock Too clayey Slope	1.00 1.00 0.63	Very limited Depth to bedrock Slope	1.00 0.63	Very limited Too clayey Hard to compact Depth to bedrock Slope	1.00 1.00 1.00 0.63
Wilkes-----	Very limited Depth to bedrock Slope	1.00 0.63	Very limited Depth to bedrock Slope	1.00 0.63	Very limited Depth to bedrock Slope	1.00 0.63
WwE2:						
Wynott-----	Very limited Slope Depth to bedrock Too clayey	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Too clayey Hard to compact Depth to bedrock	1.00 1.00 1.00 1.00
Wilkes-----	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00
WyB2:						
Wynott-----	Very limited Depth to bedrock Too clayey	1.00 1.00	Very limited Depth to bedrock	1.00	Very limited Too clayey Hard to compact Depth to bedrock	1.00 1.00 1.00
Winnsboro-----	Very limited Depth to bedrock Too clayey	1.00 1.00	Somewhat limited Depth to bedrock	0.26	Very limited Too clayey Hard to compact Depth to bedrock	1.00 1.00 0.26

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Wyc2: Wynott-----	Very limited Depth to bedrock Too clayey Slope	1.00 1.00 0.01	Very limited Depth to bedrock Slope	1.00 0.01	Very limited Too clayey Hard to compact Depth to bedrock Slope	1.00 1.00 1.00 0.01
Winnsboro-----	Very limited Depth to bedrock Too clayey Slope	1.00 1.00 0.01	Somewhat limited Depth to bedrock Slope	0.26 0.01	Very limited Too clayey Hard to compact Depth to bedrock Slope	1.00 1.00 0.26 0.01
1B: Appling-----	Not limited		Not limited		Not limited	
1C: Appling-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37
2B2: Appling-----	Not limited		Not limited		Not limited	
2C2: Appling-----	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37
3B: Buncombe-----	Very limited Seepage, bottom layer Too sandy Flooding	1.00 1.00 0.40	Very limited Seepage Flooding	1.00 0.40	Very limited Too sandy Seepage	1.00 1.00
5A: Cartecay-----	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 0.50
7B: Cataula-----	Somewhat limited Too clayey Depth to saturated zone	0.50 0.38	Not limited		Somewhat limited Too clayey Hard to compact Depth to saturated zone	0.50 0.50 0.07
8B2: Cataula-----	Somewhat limited Too clayey Depth to saturated zone	0.50 0.38	Not limited		Somewhat limited Hard to compact Depth to saturated zone	0.50 0.07
8C2: Cataula-----	Somewhat limited Too clayey Depth to saturated zone Slope	0.50 0.38 0.37	Somewhat limited Slope	0.37	Somewhat limited Hard to compact Slope Depth to saturated zone	0.50 0.37 0.07

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10B: Cecil-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
10C: Cecil-----	Somewhat limited Too clayey Slope	0.50 0.37	Somewhat limited Slope	0.37	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.37
11B2: Cecil-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
11C2: Cecil-----	Somewhat limited Too clayey Slope	0.50 0.37	Somewhat limited Slope	0.37	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.37
11D2: Cecil-----	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey Hard to compact	1.00 0.50 0.50
12B3: Cecil-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
12C3: Cecil-----	Somewhat limited Too clayey Slope	0.50 0.37	Somewhat limited Slope	0.37	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.37
13A: Chenneby-----	Very limited Flooding Depth to saturated zone Too clayey	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Too clayey	0.98 0.50
32B2: Hiwassee-----	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey Hard to compact	0.50 0.50
32C2: Hiwassee-----	Somewhat limited Too clayey Slope	0.50 0.37	Somewhat limited Slope	0.37	Somewhat limited Too clayey Hard to compact Slope	0.50 0.50 0.37
40B: Mecklenburg-----	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41B2: Mecklenburg-----	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
41C2: Mecklenburg-----	Very limited Too clayey Slope	1.00 0.37	Somewhat limited Slope	0.37	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.37
41D2: Mecklenburg-----	Very limited Slope Too clayey	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Hard to compact	1.00 1.00 1.00
44C2: Pacolet-----	Somewhat limited Too clayey Slope	0.50 0.37	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37
44D2: Pacolet-----	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope	1.00
44E2: Pacolet-----	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope	1.00
45D3: Pacolet-----	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope	1.00
45E3: Pacolet-----	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope	1.00
47C2: Rion-----	Very limited Seepage, bottom layer Slope	1.00 0.37	Very limited Seepage Slope	1.00 0.37	Somewhat limited Seepage Slope	0.50 0.37
47D2: Rion-----	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage	1.00 0.50
47E2: Rion-----	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage	1.00 0.50

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48D3: Rion-----	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage	1.00 0.50
28B: Santuc-----	Somewhat limited Depth to saturated zone	0.98	Somewhat limited Depth to saturated zone	0.56	Somewhat limited Depth to saturated zone	0.76
28C: Santuc-----	Somewhat limited Depth to saturated zone Slope	0.98 0.37	Somewhat limited Depth to saturated zone Slope	0.56 0.37	Somewhat limited Depth to saturated zone Slope	0.76 0.37
15A: Shellbluff-----	Very limited Flooding Depth to saturated zone Too clayey	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 1.00	Somewhat limited Too clayey Depth to saturated zone	0.50 0.32
49A: Toccoa-----	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Somewhat limited Seepage	0.50
50E: Udorthents-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
60C2: Wilkes-----	Very limited Depth to bedrock Slope	1.00 0.37	Very limited Depth to bedrock Slope	1.00 0.37	Very limited Depth to bedrock Slope	1.00 0.37
60D2: Wilkes-----	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00
22B: Winnsboro-----	Very limited Depth to bedrock Too clayey	1.00 1.00	Somewhat limited Depth to bedrock	0.99	Very limited Too clayey Hard to compact Depth to bedrock	1.00 1.00 0.99
22C: Winnsboro-----	Very limited Depth to bedrock Too clayey Slope	1.00 1.00 0.37	Somewhat limited Depth to bedrock Slope	0.99 0.37	Very limited Too clayey Hard to compact Depth to bedrock Slope	1.00 1.00 0.99 0.37

Soil Survey of Newberry County, South Carolina

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23B2: Winnsboro-----	Very limited Depth to bedrock	1.00	Somewhat limited Depth to bedrock	0.26	Somewhat limited Depth to bedrock	0.26
23C2: Winnsboro-----	Very limited Depth to bedrock Slope	1.00 0.37	Somewhat limited Slope Depth to bedrock	0.37 0.26	Somewhat limited Slope Depth to bedrock	0.37 0.26
23D2: Winnsboro-----	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 0.26	Very limited Slope Depth to bedrock	1.00 0.26
24D3: Winnsboro-----	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 0.26	Very limited Slope Depth to bedrock	1.00 0.26

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table)

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
AtB: Altavista-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.03
CaB: Callison-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CaC: Callison-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CcA: Cartecay-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.07
CdB2: Cataula-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CdC2: Cataula-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CeB: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CfB2: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CfC2: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CfD2: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
CnA: Chenneby-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
CyA: Chenneby-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
DaB2: Davidson-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
GaB2: Georgeville-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
GaC2: Georgeville-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
GnC2: Gundy-----	Poor		Poor	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.00
GnD2: Gundy-----	Poor		Poor	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.00
GnE2: Gundy-----	Poor		Poor	
	Thickest layer	0.00	Bottom layer	0.00
	Bottom layer	0.00	Thickest layer	0.00
HaB: Hard Labor-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
HaC: Hard Labor-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
HeB: Helena-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
HeC: Helena-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
HwB2: Hiwassee-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
HwD2: Hiwassee-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
McB: Mecklenburg-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
MeB2: Mecklenburg-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
MeC2: Mecklenburg-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
PaD2: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
PaE2: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
PaF2: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
PcC3: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
PmB: Prosperity-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.02
Bush River-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.02
Helena-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
PmC:				
Prosperity-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.02
Bush River-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.02
Helena-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
RnC2:				
Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
RnD2:				
Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
RnE2:				
Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
RnF2:				
Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
SaB:				
Santuc-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
SaC:				
Santuc-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
SeB:				
Sedgefield-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.04
ShA:				
Shellbluff-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
ToA:				
Toccoa-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.08

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
UcC2:				
Urban land-----	Not rated		Not rated	
Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
UsC:				
Urban land-----	Not rated		Not rated	
Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Santuc-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
WnB:				
Winnsboro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05
WoA:				
Worsham-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
WwD2:				
Wynott-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Wilkes-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
WwE2:				
Wynott-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Wilkes-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
WyB2:				
Wynott-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Winnsboro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
WyC2:				
Wynott-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Winnsboro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05
1B:				
Appling-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
1C:				
Appling-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
2B2:				
Appling-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
2C2:				
Appling-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
3B:				
Buncombe-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.82
	Thickest layer	0.00	Thickest layer	0.86
5A:				
Cartecay-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.07
7B:				
Cataula-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
8B2:				
Cataula-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
8C2:				
Cataula-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
10B:				
Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
10C: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
11B2: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
11C2: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
11D2: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
12B3: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
12C3: Cecil-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
13A: Chenneby-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
32B2: Hiwassee-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
32C2: Hiwassee-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
40B: Mecklenburg-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
41B2: Mecklenburg-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
41C2: Mecklenburg-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
41D2: Mecklenburg-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
44C2: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
44D2: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
44E2: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
45D3: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
45E3: Pacolet-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
47C2: Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
47D2: Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
47E2: Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
48D3: Rion-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
28B: Santuc-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
28C: Santuc-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
15A: Shellbluff-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
49A: Toccoa-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.08
50E: Udorthents-----	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
60C2: Wilkes-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
60D2: Wilkes-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.07
22B: Winnsboro-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
22C: Winnsboro-----	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
23B2: Winnsboro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05
23C2: Winnsboro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05
23D2: Winnsboro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05
24D3: Winnsboro-----	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Fair		Fair		Fair	
	Organic matter	0.12	Wetness depth	0.14	Wetness depth	0.14
	content low		Low strength	0.78		
	Too acid	0.54				
CaB, CaC: Callison-----	Fair		Poor		Fair	
	Organic matter	0.12	Depth to bedrock	0.00	Wetness depth	0.68
	content low		Low strength	0.00	Depth to bedrock	0.97
	Too acid	0.54	Wetness depth	0.68	Too acid	0.99
	Water erosion	0.90				
	Depth to bedrock	0.97				
CcA: Cartecay-----	Fair		Poor		Poor	
	Organic matter	0.02	Wetness depth	0.00	Wetness depth	0.00
	content low				Too sandy	0.62
	Too sandy	0.62				
	Too acid	0.84				
CdB2, CdC2: Cataula-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.78	Too clayey	0.00
	Organic matter	0.02	Wetness depth	0.98	Too acid	0.76
	content low				Wetness depth	0.98
	Too acid	0.20				
CeB: Cecil-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.22	Too clayey	0.00
	Organic matter	0.02			Too acid	0.92
	content low					
	Too acid	0.39				
CfB2, CfC2: Cecil-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter	0.02			Too acid	0.92
	content low					
	Too acid	0.39				
CfD2: Cecil-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter	0.02			Slope	0.26
	content low				Too acid	0.92
	Too acid	0.39				
CnA: Chenneby-----	Fair		Poor		Fair	
	Organic matter	0.02	Low strength	0.00	Wetness depth	0.24
	content low		Wetness depth	0.24		
	Too acid	0.61				
	Water erosion	0.99				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CyA: Chenneby-----	Fair		Poor		Poor	
	Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
	Too acid	0.61	Low strength	0.00		
	Water erosion	0.99				
DaB2: Davidson-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.02				
	Too acid	0.68				
GaB2, GaC2: Georgeville-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.98
	Too acid	0.54				
	Water erosion	0.68				
GnC2: Gundy-----	Poor		Fair		Poor	
	Too clayey	0.00	Depth to bedrock	0.74	Too clayey	0.00
	Organic matter content low	0.12			Hard to reclaim (rock fragments)	0.00
	Droughty	0.84				
	Too acid	0.84				
	Water erosion	0.99				
GnD2: Gundy-----	Poor		Fair		Poor	
	Too clayey	0.00	Depth to bedrock	0.74	Too clayey	0.00
	Organic matter content low	0.12			Hard to reclaim (rock fragments)	0.00
	Droughty	0.84			Slope	0.26
	Too acid	0.84				
	Water erosion	0.99				
GnE2: Gundy-----	Poor		Fair		Poor	
	Too clayey	0.00	Slope	0.50	Slope	0.00
	Organic matter content low	0.12	Depth to bedrock	0.74	Too clayey	0.00
	Droughty	0.84			Hard to reclaim (rock fragments)	0.00
	Too acid	0.84				
	Water erosion	0.99				
HaB, HaC: Hard Labor-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.98
	Too acid	0.54				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeB, HeC: Helena-----	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.02	Wetness depth	0.44	Wetness depth	0.44
	Too acid	0.50	Shrink-swell	0.46	Too acid	0.76
HwB2: Hiwassee-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12				
	Too acid	0.84				
HwD2: Hiwassee-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12			Slope	0.84
	Too acid	0.84				
McB: Mecklenburg-----	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12				
	Too acid	0.84				
MeB2, MeC2: Mecklenburg-----	Poor		Fair		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12				
	Too acid	0.84				
PaD2: Pacolet-----	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12			Slope	0.16
	Too acid	0.54			Too acid	0.98
PaE2: Pacolet-----	Poor		Fair		Poor	
	Too clayey	0.00	Slope	0.50	Slope	0.00
	Organic matter content low	0.12			Too clayey	0.00
	Too acid	0.54			Too acid	0.98
PaF2: Pacolet-----	Poor		Poor		Poor	
	Too clayey	0.00	Slope	0.00	Slope	0.00
	Organic matter content low	0.12			Too clayey	0.00
	Too acid	0.54			Too acid	0.98

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PcC3: Pacolet-----	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.98
	Too acid	0.54				
PmB, PmC: Prosperity-----	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Organic matter content low	0.12	Low strength	0.00	Wetness depth	0.29
	Droughty	0.27	Shrink-swell	0.27	Depth to bedrock	0.90
	Too acid	0.50	Wetness depth	0.29	Too acid	0.98
	Depth to bedrock	0.90				
Bush River-----	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.12	Depth to bedrock	0.23	Wetness depth	0.44
	Too acid	0.50	Wetness depth	0.44		
			Shrink-swell	0.46		
Helena-----	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.02	Wetness depth	0.44	Wetness depth	0.44
	Too acid	0.50	Shrink-swell	0.46	Too acid	0.76
RnC2: Rion-----	Fair		Good		Fair	
	Organic matter content low	0.02			Too acid	0.98
	Too acid	0.54				
RnD2: Rion-----	Fair		Good		Fair	
	Organic matter content low	0.02			Slope	0.37
	Too acid	0.54			Too acid	0.98
RnE2: Rion-----	Fair		Fair		Poor	
	Organic matter content low	0.02	Slope	0.50	Slope	0.00
	Too acid	0.54			Too acid	0.98
RnF2: Rion-----	Fair		Poor		Poor	
	Organic matter content low	0.02	Slope	0.00	Slope	0.00
	Too acid	0.54			Too acid	0.98
SaB, SaC: Santuc-----	Poor		Fair		Fair	
	Wind erosion	0.00	Wetness depth	0.68	Too acid	0.12
	Too acid	0.00			Wetness depth	0.68
	Organic matter content low	0.02				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SeB: Sedgefield-----	Poor		Fair		Poor	
	Too clayey	0.00	Wetness depth	0.01	Too clayey	0.00
	Organic matter content low	0.12	Shrink-swell	0.95	Wetness depth	0.01
	Too acid	0.99				
ShA: Shellbluff-----	Fair		Poor		Fair	
	Organic matter content low	0.12	Low strength	0.00	Too clayey	0.58
	Too acid	0.20	Wetness depth	0.95	Wetness depth	0.95
	Too clayey	0.99			Too acid	0.98
ToA: Toccoa-----	Fair		Good		Fair	
	Organic matter content low	0.12			Too sandy	0.68
	Too acid	0.54			Too acid	0.98
	Too sandy	0.68				
UcC2: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.22	Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.92
	Too acid	0.39				
UsC: Urban land-----	Not rated		Not rated		Not rated	
Cecil-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.22	Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.92
	Too acid	0.39				
Santuc-----	Poor		Fair		Fair	
	Wind erosion	0.00	Wetness depth	0.68	Too acid	0.12
	Too acid	0.00			Wetness depth	0.68
	Organic matter content low	0.02				
WnB: Winnsboro-----	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.50	Depth to bedrock	0.01		
	Too acid	0.50	Shrink-swell	0.52		
	Droughty	0.68				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WoA:						
Worsham-----	Poor		Poor		Poor	
	Too clayey	0.00	Wetness depth	0.00	Wetness depth	0.00
	Organic matter	0.12	Low strength	0.00	Too clayey	0.00
	content low		Shrink-swell	0.87	Too acid	0.98
	Too acid	0.54				
	Water erosion	0.99				
WwD2:						
Wynott-----	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Droughty	0.08	Low strength	0.00	Slope	0.37
	Organic matter	0.12	Shrink-swell	0.79	Depth to bedrock	0.46
	content low					
	Depth to bedrock	0.46				
	Too acid	0.84				
Wilkes-----	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Depth to bedrock	0.00	Low strength	0.22	Slope	0.37
	Organic matter	0.50	Shrink-swell	0.99		
	content low					
	Too acid	0.84				
WwE2:						
Wynott-----	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
	Droughty	0.08	Low strength	0.00	Too clayey	0.00
	Organic matter	0.12	Slope	0.50	Depth to bedrock	0.46
	content low		Shrink-swell	0.79		
	Depth to bedrock	0.46				
	Too acid	0.84				
Wilkes-----	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
	Depth to bedrock	0.00	Low strength	0.22	Depth to bedrock	0.00
	Organic matter	0.50	Slope	0.50		
	content low		Shrink-swell	0.99		
	Too acid	0.84				
WyB2, WyC2:						
Wynott-----	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Droughty	0.08	Low strength	0.00	Depth to bedrock	0.46
	Organic matter	0.12	Shrink-swell	0.79		
	content low					
	Depth to bedrock	0.46				
	Too acid	0.84				
Winnsboro-----	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter	0.50	Depth to bedrock	0.74		
	content low		Shrink-swell	0.89		
	Too acid	0.50				
	Droughty	0.68				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1B: Appling-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.78	Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.88
	Too acid	0.50				
1C: Appling-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.78	Too clayey	0.00
	Organic matter content low	0.02			Slope	0.63
	Too acid	0.50			Too acid	0.88
2B2: Appling-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.78	Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.88
	Too acid	0.50				
2C2: Appling-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.78	Too clayey	0.00
	Organic matter content low	0.02			Slope	0.63
	Too acid	0.50			Too acid	0.88
3B: Buncombe-----	Poor		Good		Poor	
	Wind erosion	0.00			Too sandy	0.00
	Too sandy	0.00				
	Organic matter content low	0.02				
	Droughty	0.65				
	Too acid	0.84				
5A: Cartecay-----	Fair		Poor		Poor	
	Organic matter content low	0.02	Wetness depth	0.00	Wetness depth	0.00
	Too sandy	0.62			Too sandy	0.62
	Too acid	0.84				
7B: Cataula-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.98
	Too acid	0.50				
8B2: Cataula-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.98
	Too acid	0.50				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8C2: Cataula-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.50	Fair Low strength	0.10	Poor Too clayey Slope Too acid	0.00 0.63 0.98
10B: Cecil-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.39	Good		Poor Too clayey Too acid	0.00 0.92
10C: Cecil-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.39	Good		Poor Too clayey Slope Too acid	0.00 0.63 0.92
11B2: Cecil-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.39	Fair Low strength	0.10	Poor Too clayey Too acid	0.00 0.92
11C2: Cecil-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.39	Fair Low strength	0.10	Poor Too clayey Slope Too acid	0.00 0.63 0.92
11D2: Cecil-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.39	Fair Low strength Slope	0.10 0.50	Poor Slope Too clayey Too acid	0.00 0.00 0.92
12B3: Cecil-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.32	Fair Low strength	0.10	Poor Too clayey Too acid	0.00 0.88
12C3: Cecil-----	Poor Too clayey Organic matter content low Too acid	0.00 0.02 0.32	Fair Low strength	0.10	Poor Too clayey Slope Too acid	0.00 0.63 0.88

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
13A: Chenneby-----	Fair		Poor		Fair	
	Organic matter	0.02	Low strength	0.00	Wetness depth	0.24
	content low		Wetness depth	0.24		
	Too acid	0.61				
	Water erosion	0.99				
32B2: Hiwassee-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter	0.12				
	content low					
	Too acid	0.84				
32C2: Hiwassee-----	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter	0.12			Slope	0.63
	content low					
	Too acid	0.84				
40B: Mecklenburg-----	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter	0.12				
	content low					
	Too acid	0.84				
41B2: Mecklenburg-----	Poor		Fair		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter	0.12				
	content low					
	Too acid	0.84				
41C2: Mecklenburg-----	Poor		Fair		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter	0.12			Slope	0.63
	content low					
	Too acid	0.84				
41D2: Mecklenburg-----	Poor		Fair		Poor	
	Too clayey	0.00	Slope	0.50	Slope	0.00
	Organic matter	0.12			Too clayey	0.00
	content low					
	Too acid	0.84				
44C2: Pacolet-----	Fair		Good		Fair	
	Organic matter	0.12			Slope	0.63
	content low				Too acid	0.98
	Too acid	0.54				
44D2: Pacolet-----	Fair		Fair		Poor	
	Organic matter	0.12	Slope	0.50	Slope	0.00
	content low				Too acid	0.98
	Too acid	0.54				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
44E2: Pacolet-----	Fair Organic matter content low Too acid	0.12 0.54	Poor Slope	0.00	Poor Slope Too acid	0.00 0.98
45D3: Pacolet-----	Fair Organic matter content low Too acid	0.12 0.54	Fair Slope	0.50	Poor Slope Too acid	0.00 0.98
45E3: Pacolet-----	Fair Organic matter content low Too acid	0.12 0.54	Poor Slope	0.00	Poor Slope Too acid	0.00 0.98
47C2: Rion-----	Fair Organic matter content low Too acid	0.02 0.54	Good		Fair Slope Too acid	0.63 0.98
47D2: Rion-----	Fair Organic matter content low Too acid	0.02 0.54	Fair Slope	0.50	Poor Slope Too acid	0.00 0.98
47E2: Rion-----	Fair Organic matter content low Too acid	0.02 0.54	Poor Slope	0.00	Poor Slope Too acid	0.00 0.98
48D3: Rion-----	Fair Organic matter content low Too acid	0.02 0.54	Fair Slope	0.50	Poor Slope Too acid	0.00 0.98
28B: Santuc-----	Poor Wind erosion Too acid Organic matter content low	0.00 0.00 0.02	Fair Wetness depth	0.68	Fair Too acid Wetness depth	0.12 0.68
28C: Santuc-----	Poor Wind erosion Too acid Organic matter content low	0.00 0.00 0.02	Fair Wetness depth	0.68	Fair Too acid Slope Wetness depth	0.12 0.63 0.68

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
15A: Shellbluff-----	Fair		Poor		Fair	
	Organic matter content low	0.12	Low strength	0.00	Too clayey	0.58
	Too acid	0.20	Wetness depth	0.95	Wetness depth	0.95
	Too clayey	0.99			Too acid	0.98
49A: Toccoa-----	Fair		Good		Fair	
	Organic matter content low	0.12			Too sandy	0.68
	Too acid	0.54			Too acid	0.98
	Too sandy	0.68				
50E: Udorthents-----	Fair		Fair		Poor	
	Too acid	0.68	Slope	0.88	Slope	0.00
60C2: Wilkes-----	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Depth to bedrock	0.00	Low strength	0.22	Slope	0.63
	Organic matter content low	0.50	Shrink-swell	0.99		
	Too acid	0.84				
60D2: Wilkes-----	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
	Depth to bedrock	0.00	Low strength	0.22	Depth to bedrock	0.00
	Organic matter content low	0.50	Slope	0.50		
	Too acid	0.84	Shrink-swell	0.99		
22B: Winnsboro-----	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.12	Depth to bedrock	0.01		
	Too acid	0.54	Shrink-swell	0.75		
	Droughty	0.74				
22C: Winnsboro-----	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.12	Depth to bedrock	0.01	Slope	0.63
	Too acid	0.54	Shrink-swell	0.75		
	Droughty	0.74				
23B2: Winnsboro-----	Poor		Fair		Poor	
	Too clayey	0.00	Depth to bedrock	0.74	Too clayey	0.00
	Organic matter content low	0.12	Shrink-swell	0.92		
	Too acid	0.54				

Soil Survey of Newberry County, South Carolina

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23C2: Winnsboro-----	Poor		Fair		Poor	
	Too clayey	0.00	Depth to bedrock	0.74	Too clayey	0.00
	Organic matter content low	0.12	Shrink-swell	0.92	Slope	0.63
	Too acid	0.54				
23D2: Winnsboro-----	Poor		Fair		Poor	
	Too clayey	0.00	Slope	0.50	Slope	0.00
	Organic matter content low	0.12	Depth to bedrock	0.74	Too clayey	0.00
	Too acid	0.54	Shrink-swell	0.92		
24D3: Winnsboro-----	Poor		Fair		Poor	
	Too clayey	0.00	Slope	0.50	Slope	0.00
	Organic matter content low	0.12	Depth to bedrock	0.74	Too clayey	0.00
	Too acid	0.54	Shrink-swell	0.92		

Soil Survey of Newberry County, South Carolina

Table 15.--Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AtB: Altavista-----	Somewhat limited Seepage Slope	0.70 0.08	Very limited Depth to saturated zone Seepage	1.00 0.03	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
CaB: Callison-----	Somewhat limited Depth to bedrock Slope Seepage	0.26 0.08 0.05	Somewhat limited Depth to saturated zone Thin layer Piping	0.98 0.61 0.03	Very limited Depth to water	1.00
CaC: Callison-----	Very limited Slope Depth to bedrock Seepage	1.00 0.26 0.05	Somewhat limited Depth to saturated zone Thin layer Piping	0.98 0.61 0.03	Very limited Depth to water	1.00
CcA: Cartecay-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.07	Very limited Cutbanks cave	1.00
CdB2: Cataula-----	Somewhat limited Slope Seepage	0.08 0.05	Somewhat limited Depth to saturated zone	0.68	Very limited Depth to water	1.00
CdC2: Cataula-----	Very limited Slope Seepage	1.00 0.05	Somewhat limited Depth to saturated zone	0.68	Very limited Depth to water	1.00
CeB: Cecil-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
CfB2: Cecil-----	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Hard to pack	0.63	Very limited Depth to water	1.00
CfC2, CfD2: Cecil-----	Very limited Slope Seepage	1.00 0.70	Somewhat limited Hard to pack	0.63	Very limited Depth to water	1.00

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CnA: Chenneby-----	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Piping	1.00 0.01	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
CyA: Chenneby-----	Somewhat limited Seepage	0.70	Very limited Ponding Depth to saturated zone Piping	1.00 1.00 0.01	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
DaB2: Davidson-----	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Hard to pack	0.96	Very limited Depth to water	1.00
GaB2: Georgeville-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
GaC2: Georgeville-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
GnC2, GnD2, GnE2: Gundy-----	Very limited Slope Seepage Depth to bedrock	1.00 0.70 0.01	Somewhat limited Thin layer	0.06	Very limited Depth to water	1.00
HaB: Hard Labor-----	Somewhat limited Slope Seepage	0.08 0.05	Somewhat limited Depth to saturated zone	0.02	Very limited Depth to water	1.00
HaC: Hard Labor-----	Very limited Slope Seepage	1.00 0.05	Somewhat limited Depth to saturated zone	0.02	Very limited Depth to water	1.00
HeB: Helena-----	Somewhat limited Slope Seepage	0.08 0.05	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
HeC: Helena-----	Very limited Slope Seepage	1.00 0.05	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HwB2: Hiwassee-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
HwD2: Hiwassee-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
McB: Mecklenburg-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
MeB2: Mecklenburg-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
MeC2: Mecklenburg-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
PaD2, PaE2, PaF2: Pacolet-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
PcC3: Pacolet-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
PmB: Prosperity-----	Somewhat limited Slope Seepage Depth to bedrock	0.08 0.05 0.04	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.70 0.02	Very limited Depth to water	1.00
Bush River-----	Somewhat limited Slope Seepage Depth to bedrock	0.08 0.05 0.01	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.22 0.02	Very limited Depth to water	1.00
Helena-----	Somewhat limited Slope Seepage	0.08 0.05	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
PmC: Prosperity-----	Very limited Slope Seepage Depth to bedrock	1.00 0.05 0.04	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.70 0.02	Very limited Depth to water	1.00

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PmC: Bush River-----	Very limited Slope Seepage Depth to bedrock	1.00 0.05 0.01	Very limited Depth to saturated zone Thin layer Seepage	1.00 0.22 0.02	Very limited Depth to water	1.00
Helena-----	Very limited Slope Seepage	1.00 0.05	Very limited Depth to saturated zone	1.00	Very limited Depth to water	1.00
RnC2, RnD2, RnE2, RnF2: Rion-----	Very limited Seepage Slope	1.00 1.00	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
SaB: Santuc-----	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Depth to saturated zone Piping	0.98 0.46	Very limited Depth to water	1.00
SaC: Santuc-----	Very limited Slope Seepage	1.00 0.70	Somewhat limited Depth to saturated zone Piping	0.98 0.46	Very limited Depth to water	1.00
SeB: Sedgefield-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.04	Very limited Depth to water	1.00
ShA: Shellbluff-----	Somewhat limited Seepage	0.70	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Slow refill Depth to saturated zone Cutbanks cave	0.30 0.11 0.10
ToA: Toccoa-----	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Seepage	0.09 0.08	Somewhat limited Depth to saturated zone Cutbanks cave	0.54 0.10
UcC2: Urban land-----	Somewhat limited Slope	0.68	Not rated		Not rated	
Cecil-----	Somewhat limited Seepage Slope	0.70 0.68	Not limited		Very limited Depth to water	1.00
UsC: Urban land-----	Somewhat limited Slope	0.08	Not rated		Not rated	

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
UsC:						
Cecil-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
Santuc-----	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Depth to saturated zone Piping	0.98 0.46	Very limited Depth to water	1.00
WnB:						
Winnsboro-----	Somewhat limited Slope Seepage Depth to bedrock	0.08 0.05 0.01	Somewhat limited Thin layer Hard to pack Seepage	0.42 0.24 0.05	Very limited Depth to water	1.00
WoA:						
Worsham-----	Somewhat limited Seepage	0.05	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
WwD2, WwE2:						
Wynott-----	Very limited Slope Depth to bedrock Seepage	1.00 0.13 0.05	Somewhat limited Thin layer	0.88	Very limited Depth to water	1.00
Wilkes-----	Very limited Slope Depth to bedrock	1.00 0.53	Very limited Thin layer Seepage	1.00 0.07	Very limited Depth to water	1.00
WyB2:						
Wynott-----	Somewhat limited Depth to bedrock Slope Seepage	0.13 0.08 0.05	Somewhat limited Thin layer	0.88	Very limited Depth to water	1.00
Winnsboro-----	Somewhat limited Slope Seepage Depth to bedrock	0.08 0.05 0.01	Somewhat limited Thin layer Seepage	0.06 0.05	Very limited Depth to water	1.00
Wyc2:						
Wynott-----	Very limited Slope Depth to bedrock Seepage	1.00 0.13 0.05	Somewhat limited Thin layer	0.88	Very limited Depth to water	1.00
Winnsboro-----	Very limited Slope Seepage Depth to bedrock	1.00 0.05 0.01	Somewhat limited Thin layer Seepage	0.06 0.05	Very limited Depth to water	1.00
1B:						
Appling-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1C: Appling-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
2B2: Appling-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
2C2: Appling-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
3B: Buncombe-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.86	Very limited Depth to water	1.00
5A: Cartecay-----	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.07	Very limited Cutbanks cave	1.00
7B: Cataula-----	Somewhat limited Slope Seepage	0.08 0.05	Somewhat limited Depth to saturated zone	0.37	Very limited Depth to water	1.00
8B2: Cataula-----	Somewhat limited Slope Seepage	0.08 0.05	Somewhat limited Depth to saturated zone	0.37	Very limited Depth to water	1.00
8C2: Cataula-----	Very limited Slope Seepage	1.00 0.05	Somewhat limited Depth to saturated zone	0.37	Very limited Depth to water	1.00
10B: Cecil-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
10C: Cecil-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
11B2: Cecil-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
11C2, 11D2: Cecil-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
12B3: Cecil-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
12C3: Cecil-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
13A: Chenneby-----	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Piping	1.00 0.01	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
32B2: Hiwassee-----	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Hard to pack	0.97	Very limited Depth to water	1.00
32C2: Hiwassee-----	Very limited Slope Seepage	1.00 0.70	Somewhat limited Hard to pack	0.97	Very limited Depth to water	1.00
40B: Mecklenburg-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
41B2: Mecklenburg-----	Somewhat limited Seepage Slope	0.70 0.08	Not limited		Very limited Depth to water	1.00
41C2, 41D2: Mecklenburg-----	Very limited Slope Seepage	1.00 0.70	Not limited		Very limited Depth to water	1.00
44C2: Pacolet-----	Very limited Slope Seepage	1.00 0.70	Somewhat limited Piping	0.08	Very limited Depth to water	1.00
44D2, 44E2: Pacolet-----	Very limited Slope Seepage	1.00 0.70	Somewhat limited Piping	0.08	Very limited Depth to water	1.00

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
45D3, 45E3: Pacolet-----	Very limited Slope Seepage	1.00 0.70	Somewhat limited Piping	0.06	Very limited Depth to water	1.00
47C2, 47D2, 47E2: Rion-----	Very limited Seepage Slope	1.00 1.00	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
48D3: Rion-----	Very limited Seepage Slope	1.00 1.00	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
28B: Santuc-----	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Depth to saturated zone Piping	0.98 0.46	Very limited Depth to water	1.00
28C: Santuc-----	Very limited Slope Seepage	1.00 0.70	Somewhat limited Depth to saturated zone Piping	0.98 0.46	Very limited Depth to water	1.00
15A: Shellbluff-----	Somewhat limited Seepage	0.70	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Slow refill Depth to saturated zone Cutbanks cave	0.30 0.11 0.10
49A: Toccoa-----	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Seepage	0.09 0.08	Somewhat limited Depth to saturated zone Cutbanks cave	0.54 0.10
50E: Udorthents-----	Very limited Slope Seepage	1.00 0.11	Somewhat limited Seepage	0.03	Very limited Depth to water	1.00
60C2, 60D2: Wilkes-----	Very limited Slope Depth to bedrock	1.00 0.53	Very limited Thin layer Seepage	1.00 0.07	Very limited Depth to water	1.00
22B: Winnsboro-----	Somewhat limited Slope Seepage Depth to bedrock	0.08 0.05 0.01	Somewhat limited Thin layer	0.42	Very limited Depth to water	1.00

Soil Survey of Newberry County, South Carolina

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
22C: Winnsboro-----	Very limited Slope Seepage Depth to bedrock	1.00 0.05 0.01	Somewhat limited Thin layer	0.42	Very limited Depth to water	1.00
23B2: Winnsboro-----	Somewhat limited Slope Seepage Depth to bedrock	0.08 0.05 0.01	Somewhat limited Thin layer Seepage	0.06 0.05	Very limited Depth to water	1.00
23C2: Winnsboro-----	Very limited Slope Seepage Depth to bedrock	1.00 0.05 0.01	Somewhat limited Thin layer Seepage	0.06 0.05	Very limited Depth to water	1.00
23D2: Winnsboro-----	Very limited Slope Seepage Depth to bedrock	1.00 0.05 0.01	Somewhat limited Thin layer Seepage	0.06 0.05	Very limited Depth to water	1.00
24D3: Winnsboro-----	Very limited Slope Seepage	1.00 0.05	Somewhat limited Thin layer Seepage	0.06 0.05	Very limited Depth to water	1.00

Table 16.--Engineering Properties

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--					Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
											Pct		
AtB: Altavista-----	In											Pct	
	0-5	Sandy loam	SC-SM	A-4	0	0-1	91-100	83-100	60-82	29-45	21-35	6-13	
	5-15	Sandy loam, sandy clay loam	SC-SM, SC	A-4, A-6	0	0-1	91-100	83-100	56-93	25-55	20-44	6-25	
	15-80	Sandy clay loam, clay loam, sandy loam	CL, SC, SC-SM	A-6, A-7	0	0-1	91-100	83-100	61-91	32-55	27-44	12-25	
CaB: Callison-----	0-5	Silt loam	ML	A-4	0	0-2	83-100	66-100	62-100	53-96	16-35	1-13	
	5-34	Silty clay loam, silt loam, silty clay, clay	CL	A-6, A-7-6	0	0-2	83-100	66-100	59-100	54-100	27-53	12-32	
	34-37	Silty clay, clay	CL	A-7	0-2	0-4	83-100	66-100	58-100	56-100	48-67	28-43	
	37-45	Weathered bedrock			---	---	---	---	---	---	---	---	
	45-80	Unweathered bedrock			---	---	---	---	---	---	---	---	
CaC: Callison-----	0-5	Silt loam	ML	A-4	0	0-2	83-100	66-100	62-100	53-96	16-35	1-13	
	5-34	Silty clay loam, silt loam, silty clay, clay	CL	A-6, A-7-6	0	0-2	83-100	66-100	59-100	54-100	27-53	12-32	
	34-37	Silty clay, clay	CL	A-7	0-2	0-4	83-100	66-100	58-100	56-100	48-67	28-43	
	37-45	Weathered bedrock			---	---	---	---	---	---	---	---	
	45-80	Unweathered bedrock			---	---	---	---	---	---	---	---	
CcA: Cartecay-----	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0	0-1	83-100	66-100	48-87	22-47	18-34	2-13	
	4-21	Sandy loam, coarse sandy loam	SC-SM, SM	A-2, A-4	0	0-1	78-100	55-100	40-85	17-42	17-31	3-12	
	21-35	Loamy sand, sandy loam, coarse sandy loam	SC-SM, SM	A-2	0	0-1	78-100	55-100	44-92	14-38	17-31	3-12	
	35-80	Fine sandy loam, sandy loam, loamy sand, coarse sandy loam, sand, silt loam	SC-SM, SM, ML, CL-ML	A-4	0	0-1	78-100	55-100	42-90	20-51	0-29	NP-10	
CdB2: Cataula-----	0-5	Sandy loam	SC-SM, SM	A-4	0	0-3	89-100	78-100	56-81	25-42	17-28	2-10	
	5-16	Clay, clay loam	CH	A-7	0	0-1	89-100	77-100	57-100	43-91	42-74	24-51	
	16-45	Clay, clay loam, sandy clay loam	CH	A-7	0	0-1	91-100	81-100	64-99	44-75	37-57	21-36	
	45-80	Sandy clay loam, clay loam	SC, CL	A-6	0	0-1	90-100	80-100	63-94	35-58	29-44	13-25	

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
CdC2: Cataula-----	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
	0-5	Sandy loam	SC-SM, SM	A-4	0	0-3	89-100	78-100	56-81	25-42	17-28	2-10
	5-16	Clay, clay loam	CH	A-7	0	0-1	89-100	77-100	57-100	43-91	42-74	24-51
	16-45	Clay, clay loam, sandy clay loam	CH	A-7	0	0-1	91-100	81-100	64-99	44-75	37-57	21-36
CeB: Cecil-----	45-80	Sandy clay loam, clay loam	SC, CL	A-6	0	0-1	90-100	80-100	63-94	35-58	29-44	13-25
	0-6	Sandy loam	SC-SM, SM	A-4	0	0-9	58-100	16-100	11-87	5-47	17-33	2-13
	6-42	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43
	42-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
CfB2: Cecil-----	0-3	Sandy clay loam	SC-SM, CL	A-6	0	0-9	58-100	16-100	13-97	7-61	30-45	13-25
	3-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
CfC2: Cecil-----	0-3	Sandy clay loam	CL, SC-SM	A-6	0	0-9	58-100	16-100	13-97	7-61	30-45	13-25
	3-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
CfD2: Cecil-----	0-3	Sandy clay loam	CL, SC-SM	A-6	0	0-9	58-100	16-100	13-97	7-61	30-45	13-25
	3-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
CnA: Chenneby-----	0-4	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	91-100	79-94	23-43	7-18
	4-20	Silt loam, silty clay loam, loam, clay loam	CL	A-4, A-6, A-7	0	0	100	100	88-100	82-100	22-45	7-25
	20-41	Silty clay loam, silt loam, loam, clay loam	CL	A-4, A-6, A-7	0	0	100	100	83-100	78-100	22-45	7-25
	41-80	Clay loam, silty clay loam, sandy clay loam, sandy loam	CL	A-6, A-4	0	0	100	100	76-100	61-88	18-45	4-25

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
CyA: Chenneby-----	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
	0-3	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	91-100	79-94	23-43	7-18
	3-9	Silt loam, silty clay loam, loam, clay loam	CL	A-4, A-6, A-7	0	0	100	100	88-100	82-100	22-45	7-25
	9-51	Silty clay loam, silt loam, loam, clay loam	CL	A-4, A-6, A-7	0	0	100	100	83-100	78-100	22-45	7-25
	51-80	Clay loam, silty clay loam, sandy clay loam, sandy loam	CL	A-6, A-4	0	0	100	100	76-100	61-88	18-45	4-25
DaB2: Davidson-----	0-4	Sandy clay loam	CL, SC	A-6	0	0	100	100	79-94	44-59	30-45	13-25
	4-80	Clay, clay loam	CL, CH	A-7	0	0	100	100	77-99	60-82	44-66	26-43
GaB2: Georgeville-----	0-2	Silty clay loam	CL	A-6	0	0-1	77-100	54-100	51-100	49-100	36-50	18-28
	2-41	Clay, silty clay, silty clay loam	CH	A-7	0	0-1	91-100	82-100	66-100	62-100	42-70	24-47
	41-56	Silty clay loam, clay, silty clay	CH	A-7	0	0-1	91-100	82-100	76-100	68-100	42-70	24-47
	56-80	Silty clay loam, silt loam	CL	A-4, A-6	0	0-1	91-100	82-100	71-100	61-100	24-49	9-28
GaC2: Georgeville-----	0-2	Silty clay loam	CL	A-6	0	0-1	77-100	54-100	51-100	49-100	36-50	18-28
	2-41	Clay, silty clay, silty clay loam	CH	A-7	0	0-1	91-100	82-100	66-100	62-100	42-70	24-47
	41-56	Silty clay loam, clay, silty clay	CH	A-7	0	0-1	91-100	82-100	76-100	68-100	42-70	24-47
	56-80	Silty clay loam, silt loam	CL	A-4, A-6	0	0-1	91-100	82-100	71-100	61-100	24-49	9-28

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
GnC2: Gundy-----	In				Pct	Pct					Pct	
	0-4	Silt loam	ML, CL-ML, CL	A-4	0-3	0-9	62-96	23-96	19-96	16-88	17-39	2-19
	4-27	Clay, clay loam, silty clay	CL, CH	A-7	0-3	0-9	76-96	52-96	45-96	40-96	43-67	25-44
	27-32	Channery clay loam, channery silty clay loam, channery silt loam, clay loam, silty clay loam, silt loam	GC	A-6, A-7, A-4	0-3	0-9	66-96	31-96	25-96	20-85	24-49	9-28
	32-52	Very channery clay loam, very channery silty clay loam, very channery silt loam, channery clay loam, channery silty clay loam, channery silt loam	GC	A-4, A-6, A-7	0-17	0-18	43-68	5-68	4-68	3-60	24-49	9-28
GnD2: Gundy-----	52-80	Weathered bedrock			---	---	---	---	---	---	---	---
	0-4	Silt loam	CL, CL-ML, ML	A-4	0-3	0-9	62-96	23-96	19-96	16-88	17-39	2-19
	4-27	Clay, clay loam, silty clay	CL, CH	A-7	0-3	0-9	76-96	52-96	45-96	40-96	43-67	25-44
	27-32	Channery clay loam, channery silty clay loam, channery silt loam, clay loam, silty clay loam, silt loam	GC	A-6, A-7, A-4	0-3	0-9	66-96	31-96	25-96	20-85	24-49	9-28
	32-52	Very channery clay loam, very channery silty clay loam, very channery silt loam, channery clay loam, channery silty clay loam, channery silt loam	GC	A-4, A-6, A-7	0-17	0-18	43-68	5-68	4-68	3-60	24-49	9-28
GnD2: Gundy-----	52-80	Weathered bedrock			---	---	---	---	---	---	---	---

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
GnE2: Gundy-----	In											Pct
	0-4	Silt loam	CL, CL-ML, ML	A-4	0-3	0-9	62-96	23-96	19-96	16-88	17-39	2-19
	4-27	Clay, clay loam, silty clay	CL, CH	A-7	0-3	0-9	76-96	52-96	45-96	40-96	43-67	25-44
	27-32	Channery clay loam, channery silty clay loam, channery silt loam, clay loam, silty clay loam, silt loam	GC	A-6, A-7, A-4	0-3	0-9	66-96	31-96	25-96	20-85	24-49	9-28
	32-52	Very channery clay loam, very channery silty clay loam, very channery silt loam, channery clay loam, channery silty clay loam, channery silt loam	GC	A-4, A-6, A-7	0-17	0-18	43-68	5-68	4-68	3-60	24-49	9-28
HaB: Hard Labor-----	52-80	Weathered bedrock			---	---	---	---	---	---	---	---
	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0-8	78-100	56-100	38-83	16-44	17-35	2-13
	10-15	Sandy clay loam, sandy loam	CL, SC, SC-SM	A-4, A-6	0	0-4	83-100	67-100	49-94	22-53	20-40	6-21
	15-45	Clay, clay loam	CH	A-7	0	0-4	83-100	67-100	50-100	38-82	42-66	24-43
	45-80	Clay loam, sandy clay loam	CL	A-6, A-7	0	0-4	83-100	67-100	49-94	32-68	29-49	13-28
HaC: Hard Labor-----	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0-8	78-100	56-100	38-83	16-44	17-35	2-13
	10-15	Sandy clay loam, sandy loam	CL, SC, SC-SM	A-4, A-6	0	0-4	83-100	67-100	49-94	22-53	20-40	6-21
	15-45	Clay, clay loam	CH	A-7	0	0-4	83-100	67-100	50-100	38-82	42-66	24-43
	45-80	Clay loam, sandy clay loam	CL	A-6, A-7	0	0-4	83-100	67-100	49-94	32-68	29-49	13-28
HeB: Helena-----	0-7	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	39-83	16-44	17-35	2-13
	7-12	Sandy clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	44-95	26-61	31-46	13-25
	12-38	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	42-100	34-86	45-69	25-44
	38-80	Sandy clay loam, clay loam, sandy loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	40-93	25-64	26-46	10-25

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
HeC: Helena-----	0-7	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	39-83	16-44	17-35	2-13
	7-12	Sandy clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	44-95	26-61	31-46	13-25
	12-38	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	42-100	34-86	45-69	25-44
	38-80	Sandy clay loam, clay loam, sandy loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	40-93	25-64	26-46	10-25
HwB2: Hiwassee-----	0-5	Sandy loam	SC-SM, SM	A-2, A-4	0	0-3	79-100	57-100	40-83	19-46	19-35	3-13
	5-57	Clay, clay loam	CH	A-7	0	0-4	77-100	54-100	41-100	32-84	42-66	24-43
	57-80	Clay loam, clay	CH	A-7, A-6	0	0-4	77-100	54-100	45-100	31-91	35-66	18-43
HwD2: Hiwassee-----	0-5	Sandy loam	SC-SM, SM	A-2, A-4	0	0-3	79-100	57-100	40-83	19-46	19-35	3-13
	5-57	Clay, clay loam	CH	A-7	0	0-4	77-100	54-100	41-100	32-84	42-66	24-43
	57-80	Clay loam, clay	CH	A-7, A-6	0	0-4	77-100	54-100	45-100	31-91	35-66	18-43
McB: Mecklenburg-----	0-8	Sandy loam	SC, SC-SM	A-4	0	0-9	77-100	54-100	37-82	16-42	20-34	4-13
	8-14	Sandy clay loam, clay loam	CL	A-6, A-7	0	0-8	84-100	68-100	54-94	28-57	29-44	13-25
	14-38	Clay	CH, MH	A-7	0	0-8	84-100	68-100	54-100	44-84	48-67	28-44
	38-52	Clay loam, sandy clay loam, loam	CL	A-4, A-6, A-7	0	0-8	84-100	68-100	51-90	33-64	29-44	13-25
	52-80	Loam, sandy clay loam, sandy loam	CL, CL-ML, ML	A-4, A-6	0	0-8	84-100	68-100	52-98	32-68	18-40	4-21
MeB2: Mecklenburg-----	0-4	Sandy clay loam	SC, SC-SM, CL	A-6	0	0-9	77-100	54-100	44-97	25-61	30-46	13-24
	4-35	Clay	CH, MH	A-7	0	0-8	84-100	68-100	54-100	44-84	48-67	28-44
	35-50	Clay loam, sandy clay loam, loam	CL	A-4, A-6, A-7	0	0-8	84-100	68-100	51-90	33-64	29-44	13-25
	50-80	Loam, sandy clay loam, sandy loam	CL, CL-ML, ML	A-4, A-6	0	0-8	84-100	68-100	52-98	32-68	18-40	4-21
MeC2: Mecklenburg-----	0-4	Sandy clay loam	SC, SC-SM, CL	A-6	0	0-9	77-100	54-100	44-97	25-61	30-46	13-24
	4-35	Clay	CH, MH	A-7	0	0-8	84-100	68-100	54-100	44-84	48-67	28-44
	35-50	Clay loam, sandy clay loam, loam	CL	A-4, A-6, A-7	0	0-8	84-100	68-100	51-90	33-64	29-44	13-25
	50-80	Loam, sandy clay loam, sandy loam	CL, CL-ML, ML	A-4, A-6	0	0-8	84-100	68-100	52-98	32-68	18-40	4-21

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
In					Pct	Pct					Pct	
PaD2: Pacolet-----	0-2	Sandy clay loam	SC-SM	A-6	0-2	0-4	76-100	51-100	42-97	24-61	30-46	13-24
	2-26	Clay, clay loam	CL, MH	A-6, A-7	0-1	0-2	77-100	55-100	41-100	32-89	42-70	24-47
	26-43	Clay loam, sandy clay loam, sandy loam, loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-90	27-65	24-40	9-21
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
PaE2: Pacolet-----	0-2	Sandy clay loam	SC-SM	A-6	0-2	0-4	76-100	51-100	42-97	24-61	30-46	13-24
	2-26	Clay, clay loam	CL, MH	A-6, A-7	0-1	0-2	77-100	55-100	41-100	32-89	42-70	24-47
	26-43	Clay loam, sandy clay loam, sandy loam, loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-90	27-65	24-40	9-21
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
PaF2: Pacolet-----	0-2	Sandy clay loam	SC-SM	A-6	0-2	0-4	76-100	51-100	42-97	24-61	30-46	13-24
	2-26	Clay, clay loam	CL, MH	A-6, A-7	0-1	0-2	77-100	55-100	41-100	32-89	42-70	24-47
	26-43	Clay loam, sandy clay loam, sandy loam, loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-90	27-65	24-40	9-21
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
PcC3: Pacolet-----	0-2	Clay loam	SC-SM, SC	A-6	0-1	0-4	77-100	54-100	47-99	36-79	35-50	18-28
	2-30	Clay, clay loam	CL, MH	A-6, A-7	0-1	0-2	77-100	55-100	41-100	32-89	42-70	24-47
	30-52	Clay loam, sandy clay loam, sandy loam, loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-90	27-65	24-40	9-21
	52-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
PmB: Prosperity-----	0-6	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	38-82	16-43	17-35	2-13
	6-29	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	45-100	32-83	45-69	25-44
	29-35	Sandy clay loam, clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	46-98	22-54	31-46	13-25
	35-80	Weathered bedrock			---	---	---	---	---	---	---	---
Bush River-----	0-10	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	38-82	16-43	17-35	2-13
	10-14	Sandy clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	47-100	24-59	31-46	13-25
	14-34	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	45-100	32-83	45-69	25-44
	34-46	Sandy clay loam, clay loam, sandy loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	43-98	19-54	26-46	10-25
	46-80	Weathered bedrock			---	---	---	---	---	---	---	---

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
PmB: Helena-----	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
	0-7	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	39-83	16-44	17-35	2-13
	7-12	Sandy clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	44-95	26-61	31-46	13-25
	12-38	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	42-100	34-86	45-69	25-44
	38-80	Sandy clay loam, clay loam, sandy loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	40-93	25-64	26-46	10-25
PmC: Prosperity-----	0-6	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	38-82	16-43	17-35	2-13
	6-29	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	45-100	32-83	45-69	25-44
	29-35	Sandy clay loam, clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	46-98	22-54	31-46	13-25
	35-80	Weathered bedrock			---	---	---	---	---	---	---	---
	0-10	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	38-82	16-43	17-35	2-13
Bush River-----	10-14	Sandy clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	47-100	24-59	31-46	13-25
	14-34	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	45-100	32-83	45-69	25-44
	34-46	Sandy clay loam, clay loam, sandy loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	43-98	19-54	26-46	10-25
	46-80	Weathered bedrock			---	---	---	---	---	---	---	---
	0-7	Sandy loam	SC, SC-SM, SM	A-2, A-4	0	0-8	79-100	57-100	39-83	16-44	17-35	2-13
Helena-----	7-12	Sandy clay loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	44-95	26-61	31-46	13-25
	12-38	Clay, clay loam	CH	A-7	0	0-8	78-100	55-100	42-100	34-86	45-69	25-44
	38-80	Sandy clay loam, clay loam, sandy loam	CL, SC	A-6, A-7	0	0-8	78-100	55-100	40-93	25-64	26-46	10-25
	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13
	4-25	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	50-90	24-53	27-44	12-25
RnC2: Rion-----	25-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-83	14-41	0-33	NP-15
	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13
	4-25	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	50-90	24-53	27-44	12-25
	25-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25
RnD2: Rion-----	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-83	14-41	0-33	NP-15
	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13
	4-25	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	50-90	24-53	27-44	12-25
	25-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-83	14-41	0-33	NP-15

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--					Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
RnE2: Rion-----	<u>In</u>				<u>Pct</u>	<u>Pct</u>						<u>Pct</u>	
	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13	
	4-25	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	50-90	24-53	27-44	12-25	
	25-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25	
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-83	14-41	0-33	NP-15	
RnF2: Rion-----	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13	
	4-25	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	50-90	24-53	27-44	12-25	
	25-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25	
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-83	14-41	0-33	NP-15	
SaB: Santuc-----	0-3	Loamy coarse sand	SM	A-2	0	0-8	85-100	69-100	39-65	15-30	0-26	NP-6	
	3-9	Sandy loam, loamy sand	SC-SM, SM	A-2, A-4	0	0-8	84-100	68-100	49-87	21-47	0-31	NP-12	
	9-26	Sandy clay loam, sandy loam, clay loam	CL, SC, SC-SM	A-6, A-4	0	0-3	92-100	83-100	60-98	33-64	21-44	6-25	
	26-41	Clay loam, clay, sandy clay loam	CL, SC	A-6, A-7	0	0-3	92-100	83-100	60-98	39-72	31-55	13-32	
	41-51	Loam, sandy clay loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	61-90	39-64	20-38	6-19	
SaC: Santuc-----	51-80	Sandy loam, sandy clay loam, loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	57-86	32-55	20-38	6-19	
	0-3	Loamy coarse sand	SM	A-2	0	0-8	85-100	69-100	39-65	15-30	0-26	NP-6	
	3-9	Sandy loam, loamy sand	SC-SM, SM	A-2, A-4	0	0-8	84-100	68-100	49-87	21-47	0-31	NP-12	
	9-26	Sandy clay loam, sandy loam, clay loam	CL, SC, SC-SM	A-6, A-4	0	0-3	92-100	83-100	60-98	33-64	21-44	6-25	
	26-41	Clay loam, clay, sandy clay loam	CL, SC	A-6, A-7	0	0-3	92-100	83-100	60-98	39-72	31-55	13-32	
	41-51	Loam, sandy clay loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	61-90	39-64	20-38	6-19	
	51-80	Sandy loam, sandy clay loam, loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	57-86	32-55	20-38	6-19	

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
SeB: Sedgefield-----	In				Pct	Pct					Pct	
	0-10	Sandy loam	SC-SM	A-2, A-4	0	0-8	78-100	55-100	41-87	20-48	20-34	4-13
	10-13	Sandy clay loam	CL, SC	A-6, A-7	0	0-3	84-100	67-100	58-100	36-68	31-46	13-25
	13-28	Clay, clay loam	CH, CL	A-7	0	0	100	100	76-100	59-84	45-69	25-44
	28-46	Sandy clay loam, clay loam, loam	CL, SC	A-6, A-7	0	0	100	100	81-100	48-68	26-46	10-25
	32-80	Sandy loam, loam, sandy clay loam	SC-SM, SC	A-4	0	0	100	100	77-92	38-53	20-36	6-17
ShA: Shellbluff-----	0-4	Silty clay loam	CL	A-6	0	0	100	100	97-100	90-98	36-49	18-24
	4-44	Silty clay loam, loam	CL	A-6	0	0	100	100	86-100	82-99	27-45	12-25
	44-80	Silty clay loam	CL	A-6	0	0	100	100	93-100	89-97	35-45	18-25
ToA: Toccoa-----	0-2	Sandy loam	SC-SM, SM	A-2, A-4	0	0-1	92-100	84-100	55-79	22-39	0-33	NP-10
	2-42	Sandy loam, loam, fine sandy loam, loamy sand, sand	SC-SM, SM	A-2, A-4	0	0-1	92-100	83-100	53-81	17-38	0-32	NP-13
	42-80	Loam, sandy loam, fine sandy loam, loamy sand, sand, sandy clay loam	SC-SM, SM	A-4	0	0-1	92-100	83-100	61-91	37-63	0-33	NP-13
UcC2: Urban land.												
	0-6	Sandy loam	SC-SM, SM	A-4	0	0-9	58-100	16-100	11-87	5-47	17-33	2-13
	6-42	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43
	42-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
UsC: Urban land.												
	0-6	Sandy loam	SC-SM, SM	A-4	0	0-9	58-100	16-100	11-87	5-47	17-33	2-13
	6-42	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43
	42-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
UsC: Santuc-----	In				Pct	Pct					Pct	
	0-3	Loamy coarse sand	SM	A-2	0	0-8	85-100	69-100	39-65	15-30	0-26	NP-6
	3-9	Sandy loam, loamy sand	SC-SM, SM	A-2, A-4	0	0-8	84-100	68-100	49-87	21-47	0-31	NP-12
	9-26	Sandy clay loam, sandy loam, clay loam	CL, SC, SC-SM	A-6, A-4	0	0-3	92-100	83-100	60-98	33-64	21-44	6-25
	26-41	Clay loam, clay, sandy clay loam	CL, SC	A-6, A-7	0	0-3	92-100	83-100	60-98	39-72	31-55	13-32
WnB: Winnsboro-----	41-51	Loam, sandy clay loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	61-90	39-64	20-38	6-19
	51-80	Sandy loam, sandy clay loam, loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	57-86	32-55	20-38	6-19
	0-6	Sandy loam	SC-SM	A-4	0-1	0-3	84-100	69-100	49-81	22-42	21-34	6-13
	6-30	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	49-99	40-85	45-70	25-44
	30-36	Sandy clay loam, clay loam	SC-SM	A-7, A-6	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25
WoA: Worsham-----	36-41	Sandy loam, sandy clay loam, loam, clay loam	SC-SM	A-4, A-6, A-7	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25
	41-80	Weathered bedrock			---	---	---	---	---	---	---	---
	0-5	Loam	CL, CL-ML	A-4, A-6	0	0-2	84-100	68-100	53-94	34-65	22-41	6-17
	5-17	Sandy clay loam	CL, SC	A-6	0	0-2	84-100	67-100	54-95	31-61	31-46	13-25
	17-53	Clay, clay loam	CH, CL	A-7	0	0-1	85-100	69-100	58-100	44-83	43-63	25-40
WwD2: Wynott-----	53-80	Sandy clay loam, clay loam	CL, SC	A-6, A-7	0	0-2	84-100	67-100	54-95	31-61	31-46	13-25
	0-5	Sandy loam	SC-SM, SM	A-4	0	0-9	83-100	67-100	46-84	20-44	17-34	2-13
	5-21	Clay, clay loam, sandy clay	CH, CL	A-7	0	0-9	76-100	53-100	39-100	31-89	45-74	25-48
	21-29	Sandy clay loam, clay loam, sandy clay	CL, SC	A-6	0	0-9	77-100	54-100	43-100	24-69	29-53	13-32
	29-80	Weathered bedrock			---	---	---	---	---	---	---	---
Wilkes-----	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0-3	0-9	78-100	55-100	38-83	16-44	16-34	2-13
	4-15	Sandy clay loam, clay, clay loam	CH, CL	A-7, A-6	0-1	0-8	84-100	68-100	51-100	28-66	31-55	13-32
	15-18	Sandy loam, sandy clay loam	SC, SC-SM	A-6, A-4	0-1	0-9	84-100	67-100	46-89	18-47	20-40	6-21
	18-45	Weathered bedrock			---	---	---	---	---	---	---	---
	45-80	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--					Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
<u>In</u>					<u>Pct</u>	<u>Pct</u>					<u>Pct</u>		
WwE2: Wynott-----													
	0-5	Sandy loam	SC-SM, SM	A-4	0	0-9	83-100	67-100	46-84	20-44	17-34	2-13	
	5-21	Clay, clay loam, sandy clay	CH, CL	A-7	0	0-9	76-100	53-100	39-100	31-89	45-74	25-48	
	21-29	Sandy clay loam, clay loam, sandy clay	CL, SC	A-6	0	0-9	77-100	54-100	43-100	24-69	29-53	13-32	
	29-80	Weathered bedrock			---	---	---	---	---	---	---	---	
Wilkes-----													
	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0-3	0-9	78-100	55-100	38-83	16-44	16-34	2-13	
	4-15	Sandy clay loam, clay, clay loam	CH, CL	A-7, A-6	0-1	0-8	84-100	68-100	51-100	28-66	31-55	13-32	
	15-18	Sandy loam, sandy clay loam	SC, SC-SM	A-6, A-4	0-1	0-9	84-100	67-100	46-89	18-47	20-40	6-21	
	18-45	Weathered bedrock			---	---	---	---	---	---	---	---	
	45-80	Unweathered bedrock			---	---	---	---	---	---	---	---	
WyB2: Wynott-----													
	0-5	Sandy loam	SC-SM, SM	A-4	0	0-9	83-100	67-100	46-84	20-44	17-34	2-13	
	5-21	Clay, clay loam, sandy clay	CH, CL	A-7	0	0-9	76-100	53-100	39-100	31-89	45-74	25-48	
	21-29	Sandy clay loam, clay loam, sandy clay	CL, SC	A-6	0	0-9	77-100	54-100	43-100	24-69	29-53	13-32	
	29-80	Weathered bedrock			---	---	---	---	---	---	---	---	
Winnsboro-----													
	0-6	Sandy loam	SC-SM	A-4	0-1	0-3	84-100	69-100	49-81	22-42	21-34	6-13	
	6-30	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	49-99	40-85	45-70	25-44	
	30-36	Sandy clay loam, clay loam	SC-SM	A-7, A-6	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25	
	36-41	Sandy loam, sandy clay loam, loam, clay loam	SC-SM	A-4, A-6, A-7	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25	
	41-80	Weathered bedrock			---	---	---	---	---	---	---	---	
WyC2: Wynott-----													
	0-5	Sandy loam	SC-SM, SM	A-4	0	0-9	83-100	67-100	46-84	20-44	17-34	2-13	
	5-21	Clay, clay loam, sandy clay	CH, CL	A-7	0	0-9	76-100	53-100	39-100	31-89	45-74	25-48	
	21-29	Sandy clay loam, clay loam, sandy clay	CL, SC	A-6	0	0-9	77-100	54-100	43-100	24-69	29-53	13-32	
	29-80	Weathered bedrock			---	---	---	---	---	---	---	---	

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments			Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
In					Pct	Pct					Pct		
Wyc2: Winnsboro-----	0-6	Sandy loam	SC-SM	A-4	0-1	0-3	84-100	69-100	49-81	22-42	21-34	6-13	
	6-30	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	49-99	40-85	45-70	25-44	
	30-36	Sandy clay loam, clay loam	SC-SM	A-7, A-6	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25	
	36-41	Sandy loam, sandy clay loam, loam, clay loam	SC-SM	A-4, A-6, A-7	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25	
	41-80	Weathered bedrock			---	---	---	---	---	---	---	---	
1B: Appling-----	0-9	Loamy sand	SM, SC-SM	A-2-4	0	0-9	59-100	17-100	12-85	2-26	0-28	NP-10	
	9-33	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43	
	33-80	Sandy clay loam, clay loam	CL, SC	A-6	0	0	100	100	79-94	43-58	29-44	13-25	
1C: Appling-----	0-9	Loamy sand	SM, SC-SM	A-2-4	0	0-9	59-100	17-100	12-85	2-26	0-28	NP-10	
	9-33	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43	
	33-80	Sandy clay loam, clay loam	CL, SC	A-6	0	0	100	100	79-94	43-58	29-44	13-25	
2B2: Appling-----	0-3	Sandy clay loam	SC	A-6	0	0-5	75-100	65-100	60-90	40-65	30-45	13-25	
	3-33	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43	
	33-80	Sandy clay loam, clay loam	CL, SC	A-6	0	0	100	100	79-94	43-58	29-44	13-25	
2C2: Appling-----	0-3	Sandy clay loam	SC	A-6	0	0-5	75-100	65-100	60-90	40-65	30-45	13-25	
	3-33	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	48-98	37-81	42-66	24-43	
	33-80	Sandy clay loam, clay loam	CL, SC	A-6	0	0	100	100	79-94	43-58	29-44	13-25	
3B: Buncombe-----	0-6	Coarse sand	SW-SM	A-1	0	0	100	100	41-48	5-12	0-22	NP-4	
	6-80	Sand, sandy loam, coarse sand, loamy fine sand, loamy sand, fine sand	SM	A-2	0	0	98-100	97-100	73-87	6-18	0-25	NP-7	

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
5A: Cartecay-----	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0	0-1	83-100	66-100	48-87	22-47	18-34	2-13
	4-21	Sandy loam, coarse sandy loam	SC-SM, SC	A-2, A-4	0	0-1	78-100	55-100	40-83	17-40	19-31	4-12
	21-35	Loamy sand, sandy loam, coarse sandy loam	SC-SM, SM	A-2	0	0-1	78-100	55-100	44-92	14-38	17-31	3-12
	35-80	Fine sandy loam, sandy loam, loamy sand, coarse sandy loam, sand, silt loam	SC-SM, SM, ML, CL-ML	A-4	0	0-1	78-100	55-100	42-90	21-51	0-29	NP-10
7B: Cataula-----	0-5	Sandy loam	SC-SM, SM	A-4	0	0-3	89-100	78-100	56-81	25-42	17-28	2-10
	5-37	Clay, clay loam	CH	A-7	0	0-1	89-100	77-100	57-99	43-81	42-66	24-43
	37-80	Clay loam, clay, sandy clay loam	CH	A-7	0	0-1	91-100	81-100	68-100	47-78	37-57	21-36
8B2: Cataula-----	0-3	Sandy clay loam	SC-SM, CL	A-6	0	0-3	89-100	78-100	64-97	36-61	30-45	13-25
	3-29	Clay, clay loam	CH	A-7	0	0-1	89-100	77-100	57-99	43-81	42-66	24-43
	29-80	Clay loam, clay, sandy clay loam	CH	A-7	0	0-1	91-100	81-100	68-100	47-78	37-57	21-36
8C2: Cataula-----	0-3	Sandy clay loam	CL, SC-SM	A-6	0	0-3	89-100	78-100	64-97	36-61	30-45	13-25
	3-29	Clay, clay loam	CH	A-7	0	0-1	89-100	77-100	57-99	43-81	42-66	24-43
	29-80	Clay loam, clay, sandy clay loam	CH	A-7	0	0-1	91-100	81-100	68-100	47-78	37-57	21-36
10B: Cecil-----	0-6	Sandy loam	SC-SM, SM	A-4	0	0-9	58-100	16-100	11-87	5-47	17-33	2-13
	6-42	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	49-98	36-80	42-66	24-43
	42-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
10C: Cecil-----	0-6	Sandy loam	SC-SM, SM	A-4	0	0-9	58-100	16-100	11-87	5-47	17-33	2-13
	6-42	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	49-98	36-80	42-66	24-43
	42-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
11B2: Cecil-----	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
	0-3	Sandy clay loam	SC-SM	A-6	0	0-9	58-100	16-100	13-95	7-59	30-45	13-25
	3-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	49-98	36-80	42-66	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
11C2: Cecil-----	0-3	Sandy clay loam	SC-SM	A-6	0	0-9	58-100	16-100	13-95	7-59	30-45	13-25
	3-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	49-98	36-80	42-66	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
11D2: Cecil-----	0-3	Sandy clay loam	SC-SM	A-6	0	0-9	58-100	16-100	13-95	7-59	30-45	13-25
	3-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	49-98	36-80	42-66	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
12B3: Cecil-----	0-1	Clay loam	CL	A-6	0	0-9	58-100	16-100	14-93	10-70	35-44	18-25
	1-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	50-100	40-84	42-65	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
12C3: Cecil-----	0-1	Clay loam	CL	A-6	0	0-9	58-100	16-100	14-93	10-70	35-44	18-25
	1-48	Clay, clay loam	CH	A-7	0	0-9	83-100	67-100	50-100	40-84	42-65	24-43
	48-80	Sandy clay loam, clay loam, loam	SC	A-6	0	0-9	83-100	67-100	50-90	27-56	29-44	13-25
13A: Chenneby-----	0-4	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	91-100	79-94	23-43	7-18
	4-20	Silt loam, silty clay loam, loam, clay loam	CL	A-4, A-6, A-7	0	0	100	100	88-100	82-100	22-45	7-25
	20-41	Silty clay loam, silt loam, loam, clay loam	CL	A-4, A-6, A-7	0	0	100	100	83-100	78-100	22-45	7-25
	41-80	Clay loam, silty clay loam, sandy clay loam, sandy loam	CL	A-6, A-4	0	0	100	100	76-100	61-88	18-45	4-25
32B2: Hiwassee-----	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0	0-3	79-100	57-100	40-83	19-46	19-35	3-13
	4-55	Clay, clay loam	CH, CL	A-7	0	0-4	77-100	54-100	36-100	28-87	42-74	24-51
	55-80	Clay loam, clay	CH, CL	A-7, A-6	0	0-4	77-100	54-100	44-100	32-100	35-74	18-51

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
32C2: Hiwassee-----	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0	0-3	79-100	57-100	40-83	19-46	19-35	3-13
	4-55	Clay, clay loam	CH, CL	A-7	0	0-4	77-100	54-100	36-100	28-87	42-74	24-51
	55-80	Clay loam, clay	CH, CL	A-7, A-6	0	0-4	77-100	54-100	44-100	32-100	35-74	18-51
40B: Mecklenburg-----	0-8	Sandy loam	SC, SC-SM	A-4, A-6	0	0-9	77-100	54-100	37-82	16-42	20-34	4-13
	8-14	Sandy clay loam, clay loam	CL	A-6, A-7	0	0-8	84-100	68-100	54-94	28-57	29-44	13-25
	14-38	Clay	CH	A-7	0	0-8	84-100	68-100	54-100	44-84	48-67	28-44
	38-52	Clay loam, sandy clay loam, loam	CL	A-6, A-7	0	0-8	84-100	68-100	51-90	33-64	29-44	13-25
	52-80	Loam, sandy clay loam, sandy loam	CL, CL-ML	A-4, A-6	0	0-8	84-100	68-100	52-98	32-68	18-40	4-21
41B2: Mecklenburg-----	0-4	Sandy clay loam	CL, SC-SM	A-6	0	0-9	77-100	54-100	44-97	25-61	30-46	13-24
	4-35	Clay	CH	A-7	0	0-8	84-100	68-100	54-100	44-84	48-67	28-44
	35-50	Clay loam, sandy clay loam, loam	CL	A-6, A-7	0	0-8	84-100	68-100	51-90	33-64	29-44	13-25
	50-80	Loam, sandy clay loam, sandy loam	CL, CL-ML	A-4, A-6	0	0-8	84-100	68-100	52-98	32-68	18-40	4-21
41C2: Mecklenburg-----	0-4	Sandy clay loam	CL, SC-SM	A-6	0	0-9	77-100	54-100	44-97	25-61	30-46	13-24
	4-35	Clay	CH	A-7	0	0-8	84-100	68-100	54-100	44-84	48-67	28-44
	35-50	Clay loam, sandy clay loam, loam	CL	A-6, A-7	0	0-8	84-100	68-100	51-90	33-64	29-44	13-25
	50-80	Loam, sandy clay loam, sandy loam	CL, CL-ML	A-4, A-6	0	0-8	84-100	68-100	52-98	32-68	18-40	4-21
41D2: Mecklenburg-----	0-4	Sandy clay loam	CL, SC-SM	A-6	0	0-9	77-100	54-100	44-97	25-61	30-46	13-24
	4-35	Clay	CH	A-7	0	0-8	84-100	68-100	54-100	44-84	48-67	28-44
	35-50	Clay loam, sandy clay loam, loam	CL	A-6, A-7	0	0-8	84-100	68-100	51-90	33-64	29-44	13-25
	50-80	Loam, sandy clay loam, sandy loam	CL, CL-ML	A-4, A-6	0	0-8	84-100	68-100	52-98	32-68	18-40	4-21

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
44C2: Pacolet-----	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
	0-2	Sandy clay loam	SC-SM, CL	A-6	0-2	0-4	76-100	52-100	42-96	22-57	30-46	13-24
	2-15	Clay, clay loam	CL, CH	A-7	0-1	0-2	77-100	55-100	41-100	32-84	42-66	24-43
	15-43	Clay loam, sandy clay loam, sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-92	27-67	24-42	9-22
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-6, A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
44D2: Pacolet-----	0-2	Sandy clay loam	SC-SM, CL	A-6	0-2	0-4	76-100	52-100	42-96	22-57	30-46	13-24
	2-15	Clay, clay loam	CL, CH	A-7	0-1	0-2	77-100	55-100	41-100	32-84	42-66	24-43
	15-43	Clay loam, sandy clay loam, sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-92	27-67	24-42	9-22
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-6, A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
44E2: Pacolet-----	0-2	Sandy clay loam	SC-SM, CL	A-6	0-2	0-4	76-100	52-100	42-96	22-57	30-46	13-24
	2-15	Clay, clay loam	CL, CH	A-7	0-1	0-2	77-100	55-100	41-100	32-84	42-66	24-43
	15-43	Clay loam, sandy clay loam, sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-92	27-67	24-42	9-22
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-6, A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
45D3: Pacolet-----	0-1	Clay loam	CL	A-6, A-7	0-1	0-4	77-100	54-100	47-97	36-77	35-48	18-27
	1-15	Clay, clay loam	CL, CH	A-7	0-1	0-2	77-100	55-100	41-100	32-84	42-66	24-43
	15-43	Clay loam, sandy clay loam, sandy loam, loam	SC, CL, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-92	27-67	24-42	9-22
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-4, A-6	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17
45E3: Pacolet-----	0-1	Clay loam	CL	A-6, A-7	0-1	0-4	77-100	54-100	47-97	36-77	35-48	18-27
	1-15	Clay, clay loam	CL, CH	A-7	0-1	0-2	77-100	55-100	41-100	32-84	42-66	24-43
	15-43	Clay loam, sandy clay loam, sandy loam, loam	CL, SC, SC-SM	A-4, A-6	0-1	0-4	77-100	53-100	40-92	27-67	24-42	9-22
	43-80	Loam, sandy loam, sandy clay loam	SC-SM, CL-ML	A-6, A-4	0-1	0-4	77-100	53-100	42-94	28-68	20-36	6-17

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
47C2: Rion-----	<u>In</u>				<u>Pct</u>	<u>Pct</u>					<u>Pct</u>	
	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13
	4-20	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	51-91	28-56	29-44	13-25
	20-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-86	14-44	0-36	NP-17
47D2: Rion-----	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13
	4-20	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	51-91	28-56	29-44	13-25
	20-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-86	14-44	0-36	NP-17
47E2: Rion-----	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0-1	0-3	84-100	67-100	46-83	19-44	17-34	2-13
	4-20	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	51-91	28-56	29-44	13-25
	20-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-86	14-44	0-36	NP-17
48D3: Rion-----	0-2	Sandy clay loam	SC-SM	A-2	0-1	0-3	84-100	68-100	55-96	28-57	30-46	13-24
	2-20	Sandy clay loam, clay loam	CL, SC	A-6	0-1	0-3	84-100	68-100	51-91	28-56	29-44	13-25
	20-35	Sandy clay loam, clay loam, loam	CL, SC	A-6	0-1	0-3	84-100	68-100	55-98	26-55	27-44	12-25
	35-80	Sandy loam, loamy sand, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0-1	0-3	84-100	67-100	42-86	14-44	0-36	NP-17

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
28B: Santuc-----	In										Pct	
	0-3	Loamy coarse sand	SM	A-2	0	0-8	85-100	69-100	39-65	15-30	0-26	NP-6
	3-9	Sandy loam, loamy sand	SC-SM, SM	A-2, A-4	0	0-8	84-100	68-100	49-87	21-47	0-31	NP-12
	9-26	Sandy clay loam, sandy loam, clay loam	CL, SC, SC-SM	A-6, A-4	0	0-3	92-100	83-100	60-98	33-64	21-44	6-25
	26-41	Clay loam, clay, sandy clay loam	CL, SC	A-6, A-7	0	0-3	92-100	83-100	60-98	39-72	31-55	13-32
28C: Santuc-----	41-51	Loam, sandy clay loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	61-93	39-67	20-40	6-21
	51-80	Sandy loam, sandy clay loam, loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	57-86	32-55	20-38	6-19
	0-3	Loamy coarse sand	SM	A-2	0	0-8	85-100	69-100	39-65	15-30	0-26	NP-6
	3-9	Sandy loam, loamy sand	SC-SM, SM	A-2, A-4	0	0-8	84-100	68-100	49-87	21-47	0-31	NP-12
	9-26	Sandy clay loam, sandy loam, clay loam	CL, SC, SC-SM	A-6, A-4	0	0-3	92-100	83-100	60-98	33-64	21-44	6-25
15A: Shellbluff-----	26-41	Clay loam, clay, sandy clay loam	CL, SC	A-6, A-7	0	0-3	92-100	83-100	60-98	39-72	31-55	13-32
	41-51	Loam, sandy clay loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	61-93	39-67	20-40	6-21
	51-80	Sandy loam, sandy clay loam, loam	CL-ML, SC-SM	A-4	0	0-3	92-100	83-100	57-86	32-55	20-38	6-19
	0-4	Silty clay loam	CL	A-6	0	0	100	100	97-100	90-98	36-49	18-24
	4-44	Silty clay loam, loam	CL	A-6	0	0	100	100	86-100	82-99	27-45	12-25
49A: Toccoa-----	44-80	Silty clay loam	CL	A-6	0	0	100	100	93-100	89-97	35-45	18-25
	0-2	Sandy loam	SC-SM, SM	A-2, A-4	0	0-1	92-100	84-100	55-79	22-39	0-33	NP-10
	2-42	Sandy loam, loam, fine sandy loam, loamy sand, sand	SC-SM, SM	A-2, A-4	0	0-1	92-100	83-100	52-81	17-38	0-32	NP-13
	42-80	Loam, sandy loam, fine sandy loam, loamy sand, sand, sandy clay loam	SC-SM, SM	A-4	0	0-1	92-100	83-100	60-91	37-63	0-33	NP-13
	0-80	Sandy loam, clay loam, clay, loamy sand	SC-SM, SM, CL, CH	A-2, A-4, A-6, A-7	0	0-8	85-100	70-100	47-100	21-76	16-62	2-35
50E: Udorthents-----												

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
60C2: Wilkes-----	0-4	Sandy loam	SM, SC-SM	A-2, A-4	0-3	0-9	78-100	55-100	38-83	16-44	16-34	2-13
	4-15	Sandy clay loam, clay, clay loam	CH, CL	A-7, A-6	0-1	0-8	84-100	68-100	51-100	28-66	31-55	13-32
	15-18	Sandy loam, sandy clay loam	SC, SC-SM	A-6, A-4	0-1	0-9	84-100	67-100	46-89	18-47	20-40	6-21
	18-45 45-80	Weathered bedrock Unweathered bedrock			---	---	---	---	---	---	---	---
60D2: Wilkes-----	0-4	Sandy loam	SC-SM, SM	A-2, A-4	0-3	0-9	78-100	55-100	38-83	16-44	16-34	2-13
	4-15	Sandy clay loam, clay, clay loam	CH, CL	A-7, A-6	0-1	0-8	84-100	68-100	51-100	28-66	31-55	13-32
	15-18	Sandy loam, sandy clay loam	SC, SC-SM	A-6, A-4	0-1	0-9	84-100	67-100	46-89	18-47	20-40	6-21
	18-45 45-80	Weathered bedrock Unweathered bedrock			---	---	---	---	---	---	---	---
22B: Winnsboro-----	0-5	Sandy loam	SC-SM, SM	A-2, A-4	0-1	0-3	84-100	69-100	52-89	25-50	19-34	3-13
	5-25	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	51-100	40-86	45-70	25-44
	25-32	Sandy clay loam, clay loam	SC-SM	A-6, A-7	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25
	32-52 52-80	Sandy loam, sandy clay loam, loam, clay loam Weathered bedrock	SC-SM	A-2, A-4, A-6	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25
22C: Winnsboro-----	0-5	Sandy loam	SC-SM, SM	A-2, A-4	0-1	0-3	84-100	69-100	52-89	25-50	19-34	3-13
	5-25	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	51-100	40-86	45-70	25-44
	25-32	Sandy clay loam, clay loam	SC-SM	A-6, A-7	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25
	32-52 52-80	Sandy loam, sandy clay loam, loam, clay loam Weathered bedrock	SC-SM	A-2, A-4, A-6	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25
23B2: Winnsboro-----	0-4	Sandy clay loam	SC-SM	A-2	0-1	0-3	84-100	69-100	56-97	32-61	30-46	13-24
	4-25	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	51-100	40-86	45-70	25-44
	25-32	Sandy clay loam, clay loam	SC-SM	A-6, A-7	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25
	32-52 52-80	Sandy loam, sandy clay loam, loam, clay loam Weathered bedrock	SC-SM	A-2, A-4, A-6	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
23C2: Winnsboro-----	In										Pct	
	0-4	Sandy clay loam	SC-SM	A-2	0-1	0-3	84-100	69-100	56-97	32-61	30-46	13-24
	4-25	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	51-100	40-86	45-70	25-44
	25-32	Sandy clay loam, clay loam	SC-SM	A-6, A-7	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25
	32-52	Sandy loam, sandy clay loam, loam, clay loam	SC-SM	A-2, A-4, A-6	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25
	52-80	Weathered bedrock			---	---	---	---	---	---	---	---
23D2: Winnsboro-----	0-4	Sandy clay loam	SC-SM	A-2	0-1	0-3	84-100	69-100	56-97	32-61	30-46	13-24
	4-25	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	51-100	40-86	45-70	25-44
	25-32	Sandy clay loam, clay loam	SC-SM	A-6, A-7	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25
	32-52	Sandy loam, sandy clay loam, loam, clay loam	SC-SM	A-2, A-4, A-6	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25
	52-80	Weathered bedrock			---	---	---	---	---	---	---	---
24D3: Winnsboro-----	0-4	Sandy clay loam	SC-SM	A-2	0-1	0-3	84-100	69-100	56-97	32-61	30-46	13-24
	4-25	Clay, clay loam	CH	A-7	0-1	0-4	83-100	66-100	51-100	40-86	45-70	25-44
	25-32	Sandy clay loam, clay loam	SC-SM	A-6, A-7	0-1	0-3	84-100	68-100	56-97	33-63	31-46	13-25
	32-52	Sandy loam, sandy clay loam, loam, clay loam	SC-SM	A-2, A-4, A-6	0-1	0-3	84-100	68-100	51-96	25-57	24-44	9-25
	52-80	Weathered bedrock			---	---	---	---	---	---	---	---

Table 17.--Physical Soil Properties

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Erosion factors			Wind erodi- bility index
									Kw	Kf	T	
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct				
AtB:												
Altavista-----	0-5	47-87	3-45	10-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.24	.24	5	86
	5-15	45-85	1-45	10-35	1.30-1.50	4.00-42.00	0.11-0.17	0.0-2.9	.24	.24		
	15-80	20-85	1-52	18-35	1.30-1.50	4.00-14.00	0.11-0.17	0.0-2.9	.24	.24		
CaB:												
Callison-----	0-5	1-45	50-85	4-20	1.20-1.40	4.00-14.00	0.20-0.22	0.0-2.9	.43	.43	3	56
	5-34	1-15	35-85	18-45	1.20-1.40	1.40-4.00	0.08-0.22	0.0-2.9	.43	.43		
	34-37	1-15	35-60	40-59	1.20-1.40	1.40-4.00	0.08-0.12	3.0-5.9	.37	.37		
	37-45	---	---	---	---	0.01-0.42	---	---	---	---		
	45-80	---	---	---	---	0.00-0.42	---	---	---	---		
CaC:												
Callison-----	0-5	1-45	50-85	4-20	1.20-1.40	4.00-14.00	0.20-0.22	0.0-2.9	.43	.43	3	56
	5-34	1-15	35-85	18-45	1.20-1.40	1.40-4.00	0.08-0.22	0.0-2.9	.43	.43		
	34-37	1-15	35-60	40-59	1.20-1.40	1.40-4.00	0.08-0.12	3.0-5.9	.37	.37		
	37-45	---	---	---	---	0.01-0.42	---	---	---	---		
	45-80	---	---	---	---	0.00-0.42	---	---	---	---		
CcA:												
Cartecay-----	0-4	48-85	3-45	5-19	1.20-1.40	42.00-141.00	0.12-0.14	0.0-2.9	.24	.24	5	86
	4-21	48-85	3-45	6-18	1.30-1.50	14.00-42.00	0.11-0.13	0.0-2.9	.24	.24		
	21-35	48-98	0-45	6-18	1.30-1.50	42.00-141.00	0.08-0.13	0.0-2.9	.15	.20		
	35-80	5-99	0-85	1-16	1.30-1.55	14.00-42.00	0.08-0.22	0.0-2.9	.15	.20		
CdB2:												
Cataula-----	0-5	48-85	3-45	5-15	1.35-1.75	14.00-42.00	0.11-0.14	0.0-2.9	.28	.28	3	86
	5-16	5-45	1-52	35-70	1.30-1.60	1.40-4.00	0.08-0.16	0.0-2.9	.24	.24		
	16-45	5-80	1-52	30-50	1.75-1.95	0.42-1.40	0.06-0.13	0.0-2.9	.24	.24		
	45-80	15-80	2-52	20-35	1.60-1.80	1.40-4.00	0.11-0.13	0.0-2.9	.32	.32		
CdC2:												
Cataula-----	0-5	48-85	3-45	5-15	1.35-1.75	14.00-42.00	0.11-0.14	0.0-2.9	.28	.28	3	86
	5-16	5-45	1-52	35-70	1.30-1.60	1.40-4.00	0.08-0.16	0.0-2.9	.24	.24		
	16-45	5-80	1-52	30-50	1.75-1.95	0.42-1.40	0.06-0.13	0.0-2.9	.24	.24		
	45-80	15-80	2-52	20-35	1.60-1.80	1.40-4.00	0.11-0.13	0.0-2.9	.32	.32		
CeB:												
Cecil-----	0-6	48-85	3-35	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.28	.28	4	86
	6-42	10-45	2-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	.28	.28		
	42-80	15-80	2-52	20-35	1.30-1.50	4.00-14.00	0.14-0.19	0.0-2.9	.28	.28		

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
CfB2: Cecil-----	0-3	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.0	.28	.28	3	3	86
	3-48	10-45	2-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	48-80	15-80	2-52	20-35	1.30-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.28	.28			
CfC2: Cecil-----	0-3	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.0	.28	.28	3	3	86
	3-48	10-45	2-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	48-80	15-80	2-52	20-35	1.30-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.28	.28			
CfD2: Cecil-----	0-3	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.0	.28	.28	3	3	86
	3-48	10-45	2-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	48-80	15-80	2-52	20-35	1.30-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.28	.28			
CnA: Chenneby-----	0-4	1-45	50-85	12-27	1.30-1.60	4.00-14.00	0.20-0.22	0.0-2.9	0.5-3.0	.37	.37	5	5	56
	4-20	1-45	30-80	12-35	1.30-1.50	4.00-14.00	0.14-0.22	0.0-2.9	0.0-1.0	.32	.32			
	20-41	1-45	30-80	12-35	1.30-1.50	4.00-14.00	0.14-0.22	0.0-2.9	0.0-1.0	.32	.32			
	41-80	1-80	1-72	8-35	1.30-1.50	4.00-14.00	0.11-0.20	0.0-2.9	0.0-1.0	.24	.24			
CyA: Chenneby-----	0-3	1-45	50-85	12-27	1.30-1.60	4.00-14.00	0.20-0.22	0.0-2.9	0.5-3.0	.37	.37	5	8	0
	3-9	1-45	30-80	12-35	1.30-1.50	4.00-14.00	0.14-0.22	0.0-2.9	0.0-1.0	.32	.32			
	9-51	1-45	30-80	12-35	1.30-1.50	4.00-14.00	0.14-0.22	0.0-2.9	0.0-1.0	.32	.32			
	51-80	1-80	1-72	8-35	1.30-1.50	4.00-14.00	0.11-0.20	0.0-2.9	0.0-1.0	.24	.24			
DaB2: Davidson-----	0-4	45-80	1-25	20-35	1.30-1.55	4.00-14.00	0.16-0.18	0.0-2.9	0.5-1.0	.28	.28	5	6	48
	4-80	2-45	1-35	38-60	1.20-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.24	.24			
GaB2: Georgeville-----	0-2	0-20	40-72	27-40	1.20-1.40	4.00-14.00	0.20-0.22	0.0-2.9	0.5-1.0	.49	.49	4	5	56
	2-41	0-45	30-72	35-65	1.20-1.40	4.00-14.00	0.08-0.20	0.0-2.9	0.0-0.5	.28	.28			
	41-56	0-45	30-72	35-65	1.20-1.40	4.00-14.00	0.08-0.20	0.0-2.9	0.0-0.5	.28	.28			
	56-80	0-45	40-72	15-40	1.20-1.40	4.00-14.00	0.15-0.22	0.0-2.9	0.0-0.5	.32	.32			
GaC2: Georgeville-----	0-2	0-20	40-72	27-40	1.20-1.40	4.00-14.00	0.20-0.22	0.0-2.9	0.5-1.0	.49	.49	4	5	56
	2-41	0-45	30-72	35-65	1.20-1.40	4.00-14.00	0.08-0.20	0.0-2.9	0.0-0.5	.28	.28			
	41-56	0-45	30-72	35-65	1.20-1.40	4.00-14.00	0.08-0.20	0.0-2.9	0.0-0.5	.28	.28			
	56-80	0-45	40-72	15-40	1.20-1.40	4.00-14.00	0.15-0.22	0.0-2.9	0.0-0.5	.32	.32			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
GnC2: Gundy-----	0-4	1-45	50-85	5-27	1.30-1.50	4.00-14.00	0.20-0.22	0.0-2.9	0.5-1.0	.37	.43	3	5	56
	4-27	5-45	2-60	35-60	1.20-1.50	4.00-14.00	0.08-0.16	3.0-5.9	0.0-0.5	.32	.32			
	27-32	1-45	15-72	15-40	1.30-1.50	4.00-14.00	0.10-0.22	0.0-2.9	0.0-0.5	.28	.37			
	32-52	1-45	15-72	15-40	1.30-1.50	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.28	.37			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
GnD2: Gundy-----	0-4	1-45	50-85	5-27	1.30-1.50	4.00-14.00	0.20-0.22	0.0-2.9	0.5-1.0	.37	.43	3	5	56
	4-27	5-45	2-60	35-60	1.20-1.50	4.00-14.00	0.08-0.16	3.0-5.9	0.0-0.5	.32	.32			
	27-32	1-45	15-72	15-40	1.30-1.50	4.00-14.00	0.10-0.22	0.0-2.9	0.0-0.5	.28	.37			
	32-52	1-45	15-72	15-40	1.30-1.50	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.28	.37			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
GnE2: Gundy-----	0-4	1-45	50-85	5-27	1.30-1.50	4.00-14.00	0.20-0.22	0.0-2.9	0.5-1.0	.37	.43	3	5	56
	4-27	5-45	2-60	35-60	1.20-1.50	4.00-14.00	0.08-0.16	3.0-5.9	0.0-0.5	.32	.32			
	27-32	1-45	15-72	15-40	1.30-1.50	4.00-14.00	0.10-0.22	0.0-2.9	0.0-0.5	.28	.37			
	32-52	1-45	15-72	15-40	1.30-1.50	4.00-14.00	0.07-0.19	0.0-2.9	0.0-0.5	.28	.37			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
HaB: Hard Labor-----	0-10	48-85	3-45	5-20	1.40-1.65	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	3	86
	10-15	45-85	1-45	10-30	1.20-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
	15-45	2-45	1-52	35-60	1.25-1.45	1.40-4.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	45-80	20-80	1-52	20-40	1.25-1.45	0.42-1.40	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
HaC: Hard Labor-----	0-10	48-85	3-45	5-20	1.40-1.65	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	3	86
	10-15	45-85	1-45	10-30	1.20-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
	15-45	2-45	1-52	35-60	1.25-1.45	1.40-4.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	45-80	20-80	1-52	20-40	1.25-1.45	0.42-1.40	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
HeB: Helena-----	0-7	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	7-12	45-80	1-25	20-35	1.46-1.56	1.40-4.00	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	12-38	5-45	1-45	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	38-80	15-85	1-50	15-35	1.46-1.56	1.40-4.00	0.11-0.17	3.0-5.9	0.0-0.5	.28	.28			
HeC: Helena-----	0-7	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	7-12	45-80	1-25	20-35	1.46-1.56	1.40-4.00	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	12-38	5-45	1-45	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	38-80	15-85	1-50	15-35	1.46-1.56	1.40-4.00	0.11-0.17	3.0-5.9	0.0-0.5	.28	.28			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
									Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Organic matter	Pct			
HwB2: Hiwassee-----	0-5	48-85	3-45	7-20	1.45-1.65	4.00-14.00	0.12-0.14	0.0-2.9	.28	.28	5	3	86
	5-57	2-45	1-52	35-60	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	.28	.28			
	57-80	2-45	1-52	27-60	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	.28	.28			
HwD2: Hiwassee-----	0-5	48-85	3-45	7-20	1.45-1.65	4.00-14.00	0.12-0.14	0.0-2.9	.28	.28	5	3	86
	5-57	2-45	1-52	35-60	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	.28	.28			
	57-80	2-45	1-52	27-60	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	.28	.28			
McB: Mecklenburg-----	0-8	48-85	3-45	8-20	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	.24	.24	4	5	56
	8-14	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.17	0.0-2.9	.32	.32			
	14-38	5-45	1-40	40-60	1.40-1.60	4.42-1.40	0.08-0.10	3.0-5.9	.28	.28			
	38-52	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.19	0.0-2.9	.32	.32			
	52-80	24-85	1-50	8-30	1.40-1.60	4.00-14.00	0.11-0.19	0.0-2.9	.24	.24			
MeB2: Mecklenburg-----	0-4	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	.28	.28	2	5	56
	4-35	5-45	1-40	40-60	1.40-1.60	0.42-1.40	0.08-0.10	3.0-5.9	.28	.28			
	35-50	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.19	0.0-2.9	.32	.32			
	50-80	24-85	1-50	8-30	1.40-1.60	4.00-14.00	0.11-0.19	0.0-2.9	.24	.24			
MeC2: Mecklenburg-----	0-4	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	.28	.28	2	5	56
	4-35	5-45	1-40	40-60	1.40-1.60	0.42-1.40	0.08-0.10	3.0-5.9	.28	.28			
	35-50	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.19	0.0-2.9	.32	.32			
	50-80	24-85	1-50	8-30	1.40-1.60	4.00-14.00	0.11-0.19	0.0-2.9	.24	.24			
PaD2: Pacolet-----	0-2	45-80	1-25	20-35	1.00-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.24	.24	2	3	86
	2-26	2-45	1-30	35-65	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	.28	.28			
	26-43	20-85	3-45	15-30	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	.28	.28			
PaE2: Pacolet-----	0-2	45-80	1-25	20-35	1.00-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.24	.24	2	3	86
	2-26	2-45	1-30	35-65	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	.28	.28			
	26-43	20-85	3-45	15-30	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	.28	.28			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
PaF2: Pacolet-----	0-2	45-80	1-25	20-35	1.00-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.24	.24	2	3	86
	2-26	2-45	1-30	35-65	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	26-43	20-85	3-45	15-30	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
PcC3: Pacolet-----	0-2	20-45	15-52	27-40	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.1-1.0	.24	.24	2	5	56
	2-30	2-45	1-30	35-65	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	30-52	20-85	3-45	15-30	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	52-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
PmB: Prosperity-----	0-6	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	6-29	5-45	5-52	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	29-35	20-80	1-52	20-35	1.46-1.56	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	35-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Bush River-----	0-10	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	10-14	45-80	1-25	20-35	1.46-1.56	1.40-4.00	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	14-34	5-45	5-52	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	34-46	20-85	1-52	15-35	1.46-1.56	1.40-4.00	0.11-0.17	3.0-5.9	0.0-0.5	.28	.28			
	46-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Helena-----	0-7	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	7-12	45-80	1-25	20-35	1.46-1.56	1.40-4.00	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	12-38	5-45	1-45	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	38-80	15-85	1-50	15-35	1.46-1.56	1.40-4.00	0.11-0.17	3.0-5.9	0.0-0.5	.28	.28			
PmC: Prosperity-----	0-6	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	6-29	5-45	5-52	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	29-35	20-80	1-52	20-35	1.46-1.56	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	35-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Bush River-----	0-10	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	10-14	45-80	1-25	20-35	1.46-1.56	1.40-4.00	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	14-34	5-45	5-52	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	34-46	20-85	1-52	15-35	1.46-1.56	1.40-4.00	0.11-0.17	3.0-5.9	0.0-0.5	.28	.28			
	46-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Helena-----	0-7	48-85	3-45	5-20	1.58-1.62	14.00-42.00	0.12-0.14	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	7-12	45-80	1-25	20-35	1.46-1.56	1.40-4.00	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	12-38	5-45	1-45	35-60	1.44-1.55	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	38-80	15-85	1-50	15-35	1.46-1.56	1.40-4.00	0.11-0.17	3.0-5.9	0.0-0.5	.28	.28			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
									Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Organic matter	Pct			
RnC2: Rion-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.24	.24	3	3	86
	4-25	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	.20	.24			
	25-35	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.19	0.0-2.9	.20	.24			
	35-80	45-98	0-45	2-22	1.30-1.50	14.00-42.00	0.08-0.17	0.0-2.9	.20	.24			
RnD2: Rion-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.24	.24	3	3	86
	4-25	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	.20	.24			
	25-35	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.19	0.0-2.9	.20	.24			
	35-80	45-98	0-45	2-22	1.30-1.50	14.00-42.00	0.08-0.17	0.0-2.9	.20	.24			
RnE2: Rion-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.24	.24	3	3	86
	4-25	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	.20	.24			
	25-35	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.19	0.0-2.9	.20	.24			
	35-80	45-98	0-45	2-22	1.30-1.50	14.00-42.00	0.08-0.17	0.0-2.9	.20	.24			
RnF2: Rion-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	.24	.24	3	3	86
	4-25	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	.20	.24			
	25-35	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.19	0.0-2.9	.20	.24			
	35-80	45-98	0-45	2-22	1.30-1.50	14.00-42.00	0.08-0.17	0.0-2.9	.20	.24			
SaB: Santuc-----	0-3	70-99	0-30	2-10	1.45-1.65	14.00-42.00	0.09-0.11	0.0-2.9	.20	.20	5	2	134
	3-9	48-99	0-45	2-18	1.30-1.65	4.00-42.00	0.08-0.13	0.0-2.9	.24	.24			
	9-26	20-85	1-52	10-35	1.35-1.55	4.00-14.00	0.11-0.17	1.0-2.9	.28	.28			
	26-41	2-80	1-52	20-45	1.35-1.55	1.40-4.00	0.08-0.17	3.0-5.9	.28	.28			
	41-51	24-80	1-50	10-27	1.45-1.60	4.00-14.00	0.15-0.19	0.0-2.9	.28	.28			
	51-80	24-85	1-50	10-27	1.45-1.60	4.00-14.00	0.11-0.19	0.0-2.9	.28	.28			
SaC: Santuc-----	0-3	70-99	0-30	2-10	1.45-1.65	14.00-42.00	0.09-0.11	0.0-2.9	.20	.20	5	2	134
	3-9	48-99	0-45	2-18	1.30-1.65	4.00-42.00	0.08-0.13	0.0-2.9	.24	.24			
	9-26	20-85	1-52	10-35	1.35-1.55	4.00-14.00	0.11-0.17	1.0-2.9	.28	.28			
	26-41	2-80	1-52	20-45	1.35-1.55	1.40-4.00	0.08-0.17	3.0-5.9	.28	.28			
	41-51	24-80	1-50	10-27	1.45-1.60	4.00-14.00	0.15-0.19	0.0-2.9	.28	.28			
	51-80	24-85	1-50	10-27	1.45-1.60	4.00-14.00	0.11-0.19	0.0-2.9	.28	.28			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility index
										Kw	Kf	T	
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct				
SeB: Sedgefield-----	0-10 10-13 13-28 28-46 32-80	48-85 45-80 2-45 20-80 24-85	3-45 1-30 1-52 1-52 1-52	8-20 20-35 35-60 15-35 10-25	1.40-1.60 1.30-1.50 1.20-1.40 1.30-1.50 1.35-1.55	14.00-42.00 4.00-14.00 0.42-1.40 4.00-14.00 14.00-42.00	0.12-0.14 0.15-0.17 0.08-0.16 0.14-0.19 0.11-0.19	0.0-2.9 3.0-5.9 6.0-8.9 3.0-5.9 0.0-2.9	0.5-1.5 0.0-0.5 0.0-0.5 0.0-0.5 0.0-0.5	.28 .28 .28 .28 .28	.28 .28 .28 .28 .28	3	86
ShA: Shellbluff-----	0-4 4-44 44-80	1-15 1-51 1-15	40-80 27-80 50-80	27-35 18-35 27-35	1.20-1.45 1.20-1.50 1.20-1.45	4.00-14.00 4.00-14.00 4.00-14.00	0.18-0.20 0.17-0.20 0.18-0.20	0.0-2.9 0.0-2.9 0.0-2.9	0.5-3.0 0.0-1.0 0.0-1.0	.28 .28 .28	.28 .28 .28	5	56
ToA: Toccoa-----	0-2 2-42 42-80	48-85 24-99 24-99	3-45 0-50 0-50	2-15 2-19 2-20	1.40-1.55 1.40-1.50 1.40-1.50	14.00-42.00 14.00-42.00 14.00-42.00	0.12-0.14 0.05-0.19 0.05-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-3.0 0.0-1.0 0.0-1.0	.10 .20 .20	.10 .20 .20	4	86
UcC2: Urban land.													
Cecil-----	0-6 6-42 42-80	48-85 10-45 15-80	3-35 2-30 2-52	5-20 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00	0.12-0.14 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .28 .28	.28 .28 .28	3	86
UsC: Urban land.													
Cecil-----	0-6 6-42 42-80	48-85 10-45 15-80	3-35 2-30 2-52	5-20 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00	0.12-0.14 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .28 .28	.28 .28 .28	4	86
Santuc-----	0-3 3-9 9-26 26-41 41-51 51-80	--- 48-99 20-85 2-80 24-80 24-85	--- 0-45 1-52 1-52 1-50 1-50	2-10 2-18 10-35 20-45 10-27 10-27	1.45-1.65 1.30-1.65 1.35-1.55 1.35-1.55 1.45-1.60 1.45-1.60	14.00-42.00 4.00-42.00 4.00-14.00 1.40-4.00 4.00-14.00 4.00-14.00	0.09-0.11 0.08-0.13 0.11-0.17 0.08-0.17 0.15-0.19 0.11-0.19	0.0-2.9 0.0-2.9 1.0-2.9 3.0-5.9 0.0-2.9 0.0-2.9	0.5-2.0 0.5-1.0 0.0-0.5 0.0-0.5 0.0-0.5 0.0-0.5	.20 .24 .28 .28 .28 .28	.20 .24 .28 .28 .28 .28	5	134
WnB: Winnsboro-----	0-6 6-30 30-36 36-41 41-80	48-85 2-45 20-80 20-85 ---	3-45 1-52 1-52 1-52 ---	10-20 35-60 20-35 15-35 ---	1.30-1.70 1.20-1.50 1.30-1.60 1.30-1.60 ---	14.00-42.00 0.42-1.40 1.40-4.00 1.40-4.00 0.01-0.42	0.12-0.14 0.08-0.16 0.14-0.17 0.11-0.19 ---	0.0-2.9 6.0-8.9 3.0-5.9 0.0-2.9 ---	0.5-1.5 0.0-1.0 0.0-0.5 0.0-0.5 ---	.28 .20 .28 .28 ---	.28 .20 .28 .28 ---	4	86

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
WoA: Worsham-----	0-5	24-51	27-50	10-25	1.25-1.55	4.00-14.00	0.17-0.19	0.0-2.9	1.0-3.0	.37	.37	4	5	56
	5-17	45-80	1-25	20-35	1.20-1.50	1.40-4.00	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	17-53	2-45	1-52	35-55	1.35-1.65	0.01-0.42	0.08-0.16	3.0-5.9	0.0-0.5	.28	.28			
	53-80	20-80	1-52	20-35	1.20-1.50	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
WwD2: Wynott-----	0-5	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	3	3	56
	5-21	2-65	1-52	35-65	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	21-29	20-80	1-52	20-45	1.30-1.50	1.40-4.00	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
	29-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Wilkes-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.2-1.5	.24	.24	1	5	56
	4-15	2-80	1-52	20-45	1.40-1.60	1.40-4.00	0.08-0.17	3.0-5.9	0.0-0.5	.32	.32			
	15-18	45-85	1-45	10-30	1.40-1.60	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.24	.24			
	18-45	---	---	---	---	0.01-0.42	---	---	---	---	---			
WwE2: Wynott-----	0-5	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	3	3	56
	5-21	2-65	1-52	35-65	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	21-29	20-80	1-52	20-45	1.30-1.50	1.40-4.00	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
	29-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Wilkes-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.2-1.5	.24	.24	1	5	56
	4-15	2-80	1-52	20-45	1.40-1.60	1.40-4.00	0.08-0.17	3.0-5.9	0.0-0.5	.32	.32			
	15-18	45-85	1-45	10-30	1.40-1.60	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.24	.24			
	18-45	---	---	---	---	0.01-0.42	---	---	---	---	---			
WyB2: Wynott-----	0-5	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	3	3	56
	5-21	2-65	1-52	35-65	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	21-29	20-80	1-52	20-45	1.30-1.50	1.40-4.00	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
	29-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Winnsboro-----	0-6	48-85	3-45	10-20	1.30-1.70	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	6-30	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	30-36	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	36-41	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	41-80	---	---	---	---	0.01-0.42	---	---	---	---	---			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
WyC2: Wynott-----	0-5	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	3	3	56
	5-21	2-65	1-52	35-65	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-0.5	.28	.28			
	21-29	20-80	1-52	20-45	1.30-1.50	1.40-4.00	0.14-0.17	0.0-2.9	0.0-0.5	.28	.28			
	29-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
Winnsboro-----	0-6	48-85	3-45	10-20	1.30-1.70	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	6-30	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	30-36	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	36-41	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
1B: Appling-----	41-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
	0-9	70-99	0-30	1-15	1.45-1.55	42.00-141.00	0.09-0.11	0.0-2.9	0.5-1.0	.24	.24	4	3	86
	9-33	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	33-80	20-80	1-40	20-35	1.60-1.80	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.28			
1C: Appling-----	0-9	70-99	0-30	1-15	1.45-1.55	42.00-141.00	0.09-0.11	0.0-2.9	0.5-1.0	.24	.24	4	3	86
	9-33	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	33-80	20-80	1-40	20-35	1.60-1.80	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.28			
2B2: Appling-----	0-3	45-80	1-25	20-35	1.45-1.55	4.00-14.00	0.11-0.13	0.0-2.9	0.5-1.0	.28	.28	3	5	56
	3-33	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	33-80	20-80	1-40	20-35	1.60-1.80	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.28			
2C2: Appling-----	0-3	45-80	1-25	20-35	1.45-1.55	4.00-14.00	0.11-0.13	0.0-2.9	0.5-1.0	.28	.28	3	5	56
	3-33	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	33-80	20-80	1-40	20-35	1.60-1.80	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.28			
3B: Buncombe-----	0-6	85-99	0-15	0-7	1.60-1.75	42.00-141.00	0.03-0.05	0.0-2.9	0.2-1.0	.10	.10	5	2	134
	6-80	48-99	0-45	0-12	1.60-1.75	42.00-141.00	0.05-0.07	0.0-2.9	0.0-0.5	.10	.10			
5A: Cartecay-----	0-4	48-85	3-45	5-19	1.20-1.40	42.00-141.00	0.12-0.14	0.0-2.9	1.0-2.0	.24	.24	5	3	86
	4-21	48-85	3-45	8-18	1.30-1.50	14.00-42.00	0.11-0.13	0.0-2.9	0.2-1.0	.24	.24			
	21-35	48-99	1-45	6-18	1.30-1.50	42.00-141.00	0.08-0.13	0.0-2.9	0.2-1.0	.15	.20			
	35-80	1-99	0-85	2-16	1.30-1.55	14.00-42.00	0.08-0.22	0.0-2.9	0.1-1.0	.15	.20			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth In	Sand Pct	Silt Pct	Clay Pct	Moist bulk density g/cc	Saturated hydraulic conductivity um/sec	Available water capacity In/in	Linear extensi- bility	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
7B: Cataula-----	0-5 5-37 37-80	48-85 5-45 25-80	3-45 2-52 1-52	5-15 35-60 30-50	1.35-1.75 1.30-1.60 1.75-1.95	14.00-42.00 1.40-4.00 0.42-1.40	0.11-0.14 0.08-0.16 0.06-0.13	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .24 .24	.28 .24 .24	3	3	86
8B2: Cataula-----	0-3 3-29 29-80	45-80 5-45 25-80	1-25 2-52 1-52	20-35 35-60 30-50	1.35-1.75 1.30-1.60 1.75-1.95	4.00-14.00 1.40-4.00 0.42-1.40	0.12-0.15 0.08-0.16 0.06-0.13	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .24 .24	.28 .24 .24	3	5	56
8C2: Cataula-----	0-3 3-29 29-80	45-80 5-45 25-80	1-25 2-52 1-52	20-35 35-60 30-50	1.35-1.75 1.30-1.60 1.75-1.95	4.00-14.00 1.40-4.00 0.42-1.40	0.12-0.15 0.08-0.16 0.06-0.13	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .24 .24	.28 .24 .24	3	5	56
10B: Cecil-----	0-6 6-42 42-80	48-85 10-45 15-80	3-35 2-30 2-52	5-20 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00	0.12-0.14 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .28 .28	.28 .28 .28	4	3	86
10C: Cecil-----	0-6 6-42 42-80	48-85 10-45 15-80	3-35 2-30 2-52	5-20 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00	0.12-0.14 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .28 .28	.28 .28 .28	4	3	86
11B2: Cecil-----	0-3 3-48 48-80	45-80 10-45 15-80	1-25 2-30 2-52	20-35 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00	0.12-0.14 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .28 .28	.28 .28 .28	3	3	86
11C2: Cecil-----	0-3 3-48 48-80	45-80 10-45 15-80	1-25 2-30 2-52	20-35 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00	0.12-0.14 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .28 .28	.28 .28 .28	3	3	86
11D2: Cecil-----	0-3 3-48 48-80	45-80 10-45 15-80	1-25 2-30 2-52	20-35 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00	0.12-0.14 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.28 .28 .28	.28 .28 .28	3	3	86
12B3: Cecil-----	0-1 1-48 48-80	20-45 10-45 15-80	15-52 2-30 2-52	27-35 35-60 20-35	1.30-1.50 1.30-1.50 1.30-1.50	4.00-14.00 4.00-14.00 4.00-14.00	0.14-0.19 0.08-0.16 0.14-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.1-0.5 0.0-0.2 0.0-0.5	.28 .28 .28	.28 .28 .28	3	5	56

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
12C3: Cecil-----	0-1	20-45	15-52	27-35	1.30-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.1-0.5	.28	.28	3	5	56
	1-48	10-45	2-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.2	.28	.28			
	48-80	15-80	2-52	20-35	1.30-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.28	.28			
13A: Chenneby-----	0-4	1-45	50-85	12-27	1.30-1.60	4.00-14.00	0.20-0.22	0.0-2.9	0.5-3.0	.37	.37	5	5	56
	4-20	1-15	55-80	12-35	1.30-1.50	4.00-14.00	0.14-0.22	0.0-2.9	0.0-1.0	.32	.32			
	20-41	1-15	55-80	12-35	1.30-1.50	4.00-14.00	0.14-0.22	0.0-2.9	0.0-1.0	.32	.32			
	41-80	1-80	1-72	8-35	1.30-1.50	4.00-14.00	0.11-0.20	0.0-2.9	0.0-1.0	.24	.24			
32B2: Hiwassee-----	0-4	48-85	3-45	7-20	1.45-1.65	4.00-14.00	0.12-0.14	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	4-55	2-45	1-52	35-70	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	55-80	2-45	1-52	27-70	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
32C2: Hiwassee-----	0-4	48-85	3-45	7-20	1.45-1.65	4.00-14.00	0.12-0.14	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	4-55	2-45	1-52	35-70	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	55-80	2-45	1-52	27-70	1.30-1.45	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
40B: Mecklenburg-----	0-8	48-85	3-45	8-20	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	5	56
	8-14	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.17	0.0-2.9	0.0-0.5	.32	.32			
	14-38	5-45	1-40	40-60	1.40-1.60	0.42-1.40	0.08-0.10	3.0-5.9	0.0-0.5	.28	.28			
	38-52	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.32	.32			
41B2: Mecklenburg-----	52-80	24-85	1-50	8-30	1.40-1.60	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	0-4	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	2	5	56
	4-35	5-45	1-40	40-60	1.40-1.60	0.42-1.40	0.08-0.10	3.0-5.9	0.0-0.5	.28	.28			
41C2: Mecklenburg-----	35-50	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.32	.32			
	50-80	24-85	1-50	8-30	1.40-1.60	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
	0-4	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	2	5	56
41D2: Mecklenburg-----	4-35	5-45	1-40	40-60	1.40-1.60	0.42-1.40	0.08-0.10	3.0-5.9	0.0-0.5	.28	.28			
	35-50	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.32	.32			
	50-80	24-85	1-50	8-30	1.40-1.60	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			
41D2: Mecklenburg-----	0-4	45-80	1-25	20-35	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	2	5	56
	4-35	5-45	1-40	40-60	1.40-1.60	0.42-1.40	0.08-0.10	3.0-5.9	0.0-0.5	.28	.28			
	35-50	20-80	1-52	20-35	1.40-1.60	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.32	.32			
	50-80	24-85	1-50	8-30	1.40-1.60	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.24	.24			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
44C2: Pacoleet-----	0-2	45-80	1-25	20-35	1.20-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.24	.24	2	3	86
	2-15	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	15-43	20-85	3-45	15-32	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
44D2: Pacoleet-----	0-2	45-80	1-25	20-35	1.20-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.24	.24	2	3	86
	2-15	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	15-43	20-85	3-45	15-32	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
44E2: Pacoleet-----	0-2	45-80	1-25	20-35	1.20-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.24	.24	2	3	86
	2-15	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	15-43	20-85	3-45	15-32	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
45D3: Pacoleet-----	0-1	20-45	15-52	27-38	1.30-1.50	4.00-14.00	0.10-0.14	0.0-2.9	0.1-1.0	.24	.24	2	5	56
	1-15	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	15-43	20-85	3-45	15-32	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
45E3: Pacoleet-----	0-1	20-45	15-52	27-38	1.30-1.50	4.00-14.00	0.10-0.14	0.0-2.9	0.1-1.0	.24	.24	2	5	56
	1-15	2-45	1-30	35-60	1.30-1.50	4.00-14.00	0.08-0.16	0.0-2.9	0.0-0.5	.28	.28			
	15-43	20-85	3-45	15-32	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	43-80	24-85	3-50	10-25	1.20-1.50	4.00-14.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
47C2: Rion-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.5	.24	.24	3	3	86
	4-20	20-80	1-52	20-35	1.40-1.50	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.20	.24			
	20-35	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.20	.24			
	35-80	45-98	0-45	2-25	1.30-1.50	14.00-42.00	0.08-0.17	0.0-2.9	0.0-0.5	.20	.24			
47D2: Rion-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.5	.24	.24	3	3	86
	4-20	20-80	1-52	20-35	1.40-1.50	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.20	.24			
	20-35	20-80	1-52	18-35	1.40-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.20	.24			
	35-80	45-98	0-45	2-25	1.30-1.50	14.00-42.00	0.08-0.17	0.0-2.9	0.0-0.5	.20	.24			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth In	Sand Pct	Silt Pct	Clay Pct	Moist bulk density g/cc	Saturated hydraulic conductivity um/sec	Available water capacity In/in	Linear extensi- bility Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
47E2: Rion-----	0-4 4-20 20-35 35-80	48-85 20-80 20-80 45-98	3-45 1-52 1-52 0-45	5-20 20-35 18-35 2-25	1.30-1.50 1.40-1.50 1.40-1.50 1.30-1.50	14.00-42.00 4.00-14.00 4.00-14.00 14.00-42.00	0.13-0.15 0.12-0.16 0.14-0.19 0.08-0.17	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.5 0.0-0.5 0.0-0.5 0.0-0.5	.24 .20 .20 .20	.24 .24 .24 .24	3	3	86
48D3: Rion-----	0-2 2-20 20-35 35-80	48-85 20-80 20-80 45-98	3-45 1-52 1-52 0-45	20-35 20-35 18-35 2-25	1.40-1.50 1.40-1.50 1.40-1.50 1.30-1.50	4.00-14.00 4.00-14.00 4.00-14.00 14.00-42.00	0.14-0.16 0.12-0.16 0.14-0.19 0.08-0.17	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.5 0.0-0.5 0.0-0.5 0.0-0.5	.24 .20 .20 .20	.24 .24 .24 .24	2	5	56
28B: Santuc-----	0-3 3-9 9-26 26-41 41-51 51-80	70-99 48-99 20-85 2-80 24-80 24-85	0-30 0-45 1-52 1-52 1-50 1-50	2-10 2-18 10-35 20-45 10-30 10-27	1.45-1.65 1.30-1.65 1.35-1.55 1.35-1.55 1.45-1.60 1.45-1.60	14.00-42.00 4.00-42.00 4.00-14.00 1.40-4.00 4.00-14.00 4.00-14.00	0.09-0.11 0.08-0.13 0.11-0.17 0.08-0.17 0.15-0.19 0.11-0.19	0.0-2.9 0.0-2.9 1.0-2.9 3.0-5.9 0.0-2.9 0.0-2.9	0.5-2.0 0.5-1.0 0.0-0.5 0.0-0.5 0.0-0.5 0.0-0.5	.20 .24 .28 .28 .28 .28	.20 .24 .28 .28 .28 .28	5	2	134
28C: Santuc-----	0-3 3-9 9-26 26-41 41-51 51-80	70-99 48-99 20-85 2-80 24-80 24-85	0-30 0-45 1-52 1-52 1-50 1-50	2-10 2-18 10-35 20-45 10-30 10-27	1.45-1.65 1.30-1.65 1.35-1.55 1.35-1.55 1.45-1.60 1.45-1.60	14.00-42.00 4.00-42.00 4.00-14.00 1.40-4.00 4.00-14.00 4.00-14.00	0.09-0.11 0.08-0.13 0.11-0.17 0.08-0.17 0.15-0.19 0.11-0.19	0.0-2.9 0.0-2.9 1.0-2.9 3.0-5.9 0.0-2.9 0.0-2.9	0.5-2.0 0.5-1.0 0.0-0.5 0.0-0.5 0.0-0.5 0.0-0.5	.20 .24 .28 .28 .28 .28	.20 .24 .28 .28 .28 .28	5	2	134
15A: Shellbluff-----	0-4 4-44 44-80	1-15 1-15 1-15	40-80 55-80 50-80	27-35 18-35 27-35	1.20-1.45 1.20-1.50 1.20-1.45	4.00-14.00 4.00-14.00 4.00-14.00	0.18-0.22 0.17-0.20 0.18-0.20	0.0-2.9 0.0-2.9 0.0-2.9	0.5-3.0 0.0-1.0 0.0-1.0	.28 .28 .28	.28 .28 .28	5	5	56
49A: Toccoa-----	0-2 2-42 42-80	48-85 24-99 24-99	3-45 0-50 0-50	2-15 1-19 1-20	1.40-1.55 1.40-1.50 1.40-1.50	14.00-42.00 14.00-91.00 14.00-91.00	0.12-0.14 0.05-0.19 0.05-0.19	0.0-2.9 0.0-2.9 0.0-2.9	0.5-3.0 0.0-1.0 0.0-1.0	.10 .20 .20	.10 .20 .20	4	3	86
50E: Udorthents-----	0-80	2-96	1-52	5-50	1.40-1.80	0.01-141.00	0.05-0.18	0.0-2.9	0.1-3.0	.20	.20	5	5	56

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
In	Pct	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
60C2: Wilkes-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.2-1.5	.24	.24	2	5	56
	4-15	2-80	1-52	20-45	1.40-1.60	1.40-4.00	0.08-0.17	3.0-5.9	0.0-0.5	.32	.32			
	15-18	45-85	1-45	10-30	1.40-1.60	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.24	.24			
	18-45	---	---	---	---	0.01-0.42	---	---	---	---	---			
	45-80	---	---	---	---	0.00-0.42	---	---	---	---	---			
60D2: Wilkes-----	0-4	48-85	3-45	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.2-1.5	.24	.24	2	5	56
	4-15	2-80	1-52	20-45	1.40-1.60	1.40-4.00	0.08-0.17	3.0-5.9	0.0-0.5	.32	.32			
	15-18	45-85	1-45	10-30	1.40-1.60	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.24	.24			
	18-45	---	---	---	---	0.01-0.42	---	---	---	---	---			
	45-80	---	---	---	---	0.00-0.42	---	---	---	---	---			
22B: Winnsboro-----	0-5	48-85	3-45	7-20	1.30-1.70	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	5-25	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	25-32	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	32-52	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
22C: Winnsboro-----	0-5	48-85	3-45	7-20	1.30-1.70	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	5-25	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	25-32	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	32-52	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
23B2: Winnsboro-----	0-4	48-85	3-45	20-35	1.30-1.70	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	4-25	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	25-32	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	32-52	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
23C2: Winnsboro-----	0-4	48-85	3-45	20-35	1.30-1.70	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	4-25	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	25-32	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	32-52	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
23D2: Winnsboro-----	0-4	48-85	3-45	20-35	1.30-1.70	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	4-25	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	25-32	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	32-52	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			
24D3: Winnsboro-----	0-4	48-85	3-45	20-35	1.30-1.70	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.28	.28	4	3	86
	4-25	2-45	1-52	35-60	1.20-1.50	0.42-1.40	0.08-0.16	6.0-8.9	0.0-1.0	.20	.20			
	25-32	20-80	1-52	20-35	1.30-1.60	1.40-4.00	0.14-0.17	3.0-5.9	0.0-0.5	.28	.28			
	32-52	20-85	1-52	15-35	1.30-1.60	1.40-4.00	0.11-0.19	0.0-2.9	0.0-0.5	.28	.28			
	52-80	---	---	---	---	0.01-0.42	---	---	---	---	---			

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
AtB:				
Altavista-----	0-5	---	1.7-3.9	4.5-6.0
	5-15	3.4-12	---	4.5-6.0
	15-80	6.0-12	---	4.5-6.0
CaB:				
Callison-----	0-5	---	0.7-3.9	5.1-6.0
	5-34	---	3.5-11	4.5-6.0
	34-37	---	8.0-15	4.5-6.0
	37-45	---	---	---
	45-80	---	---	---
CaC:				
Callison-----	0-5	---	0.7-3.9	5.1-6.0
	5-34	---	3.5-11	4.5-6.0
	34-37	---	8.0-15	4.5-6.0
	37-45	---	---	---
	45-80	---	---	---
CcA:				
Cartecay-----	0-4	1.9-7.0	---	5.1-6.5
	4-21	2.2-6.5	---	5.1-6.5
	21-35	2.2-6.5	---	5.1-6.5
	35-80	0.7-5.8	---	5.1-6.5
CdB2:				
Cataula-----	0-5	---	0.5-4.0	4.5-6.5
	5-16	---	1.0-6.0	4.5-6.0
	16-45	---	1.1-6.1	4.5-6.0
	45-80	---	0.8-5.0	4.5-6.0
CdC2:				
Cataula-----	0-5	---	0.5-4.0	4.5-6.5
	5-16	---	1.0-6.0	4.5-6.0
	16-45	---	1.1-6.1	4.5-6.0
	45-80	---	0.8-5.0	4.5-6.0
CeB:				
Cecil-----	0-6	---	0.8-4.0	4.5-6.0
	6-42	---	1.5-7.0	4.5-5.5
	42-80	---	1.0-6.0	4.5-5.5
CfB2:				
Cecil-----	0-3	---	0.6-5.6	4.5-6.0
	3-48	---	1.5-7.0	4.5-5.5
	48-80	---	1.0-6.0	4.5-5.5
CfC2:				
Cecil-----	0-3	---	0.6-5.6	4.5-6.0
	3-48	---	1.5-7.0	4.5-5.5
	48-80	---	1.0-6.0	4.5-5.5
CfD2:				
Cecil-----	0-3	---	0.6-5.6	4.5-6.0
	3-48	---	1.5-7.0	4.5-5.5
	48-80	---	1.0-6.0	4.5-5.5

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
CnA:				
Chenneby-----	0-4	---	2.9-9.1	5.1-6.0
	4-20	6.1-19	---	4.5-6.0
	20-41	6.1-19	---	4.5-6.0
	41-80	4.1-19	---	4.5-6.0
CyA:				
Chenneby-----	0-3	---	2.9-9.1	5.1-6.0
	3-9	6.1-19	---	4.5-6.0
	9-51	6.1-19	---	4.5-6.0
	51-80	4.1-19	---	4.5-6.0
DaB2:				
Davidson-----	0-4	1.0-9.0	---	4.5-6.5
	4-80	1.2-9.3	---	4.5-6.5
GaB2:				
Georgeville-----	0-2	6.4-13	---	4.5-6.5
	2-41	---	3.3-9.8	4.5-5.5
	41-56	---	3.0-9.0	4.5-5.5
	56-80	---	2.8-8.7	4.5-5.5
GaC2:				
Georgeville-----	0-2	6.4-13	---	4.5-6.5
	2-41	---	3.3-9.8	4.5-5.5
	41-56	---	3.0-9.0	4.5-5.5
	56-80	---	2.8-8.7	4.5-5.5
GnC2:				
Gundy-----	0-4	1.9-9.7	---	5.1-6.5
	4-27	12-21	---	5.1-6.5
	27-32	5.0-14	---	5.1-6.5
	32-52	5.0-14	---	5.1-6.5
	52-80	---	---	---
GnD2:				
Gundy-----	0-4	1.9-9.7	---	5.1-6.5
	4-27	12-21	---	5.1-6.5
	27-32	5.0-14	---	5.1-6.5
	32-52	5.0-14	---	5.1-6.5
	52-80	---	---	---
GnE2:				
Gundy-----	0-4	1.9-9.7	---	5.1-6.5
	4-27	12-21	---	5.1-6.5
	27-32	5.0-14	---	5.1-6.5
	32-52	5.0-14	---	5.1-6.5
	52-80	---	---	---
HaB:				
Hard Labor-----	0-10	1.0-6.0	---	4.5-7.3
	10-15	1.1-6.1	---	4.5-6.5
	15-45	---	1.3-6.3	4.5-6.0
	45-80	---	1.0-6.0	4.5-6.0
HaC:				
Hard Labor-----	0-10	1.0-6.0	---	4.5-7.3
	10-15	1.1-6.1	---	4.5-6.5
	15-45	---	1.3-6.3	4.5-6.0
	45-80	---	1.0-6.0	4.5-6.0

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
HeB: Helena-----	0-7	---	0.8-3.9	4.5-5.5
	7-12	---	3.9-8.4	4.5-5.5
	12-38	---	6.9-15	4.5-5.5
	38-80	---	2.9-8.4	4.5-5.5
HeC: Helena-----	0-7	---	0.8-3.9	4.5-5.5
	7-12	---	3.9-8.4	4.5-5.5
	12-38	---	6.9-15	4.5-5.5
	38-80	---	2.9-8.4	4.5-5.5
HwB2: Hiwassee-----	0-5	2.0-6.5	---	4.5-6.5
	5-57	4.0-10	---	4.5-6.5
	57-80	3.0-8.5	---	4.5-6.5
HwD2: Hiwassee-----	0-5	2.0-6.5	---	4.5-6.5
	5-57	4.0-10	---	4.5-6.5
	57-80	3.0-8.5	---	4.5-6.5
MCB: Mecklenburg-----	0-8	4.3-11	---	5.1-6.5
	8-14	10-18	---	5.6-7.3
	14-38	20-31	---	5.6-7.3
	38-52	10-18	---	5.6-7.3
	52-80	4.1-16	---	5.6-7.3
MeB2: Mecklenburg-----	0-4	11-19	---	5.1-6.5
	4-35	20-31	---	5.6-7.3
	35-50	10-18	---	5.6-7.3
	50-80	4.1-16	---	5.6-7.3
MeC2: Mecklenburg-----	0-4	11-19	---	5.1-6.5
	4-35	20-31	---	5.6-7.3
	35-50	10-18	---	5.6-7.3
	50-80	4.1-16	---	5.6-7.3
PaD2: Pacolet-----	0-2	---	0.6-5.6	4.5-6.5
	2-26	---	1.5-7.5	4.5-6.0
	26-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0
PaE2: Pacolet-----	0-2	---	0.6-5.6	4.5-6.5
	2-26	---	1.5-7.5	4.5-6.0
	26-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0
PaF2: Pacolet-----	0-2	---	0.6-5.6	4.5-6.5
	2-26	---	1.5-7.5	4.5-6.0
	26-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
PcC3:				
Pacolet-----	0-2	---	2.4-8.6	4.5-6.5
	2-30	---	1.5-7.5	4.5-6.0
	30-52	---	1.2-6.3	4.5-6.0
	52-80	---	1.1-5.3	4.5-6.0
PmB:				
Prosperity-----	0-6	---	0.8-3.9	4.5-6.0
	6-29	---	6.9-15	4.5-6.0
	29-35	---	3.9-8.4	4.5-6.0
	35-80	---	---	---
Bush River-----	0-10	1.9-7.3	---	4.5-6.0
	10-14	6.7-12	---	4.5-6.0
	14-34	12-21	---	4.5-6.0
	34-46	---	2.9-8.4	4.5-6.0
	46-80	---	---	---
Helena-----	0-7	---	0.8-3.9	4.5-5.5
	7-12	---	3.9-8.4	4.5-5.5
	12-38	---	6.9-15	4.5-5.5
	38-80	---	2.9-8.4	4.5-5.5
PmC:				
Prosperity-----	0-6	---	0.8-3.9	4.5-6.0
	6-29	---	6.9-15	4.5-6.0
	29-35	---	3.9-8.4	4.5-6.0
	35-80	---	---	---
Bush River-----	0-10	1.9-7.3	---	4.5-6.0
	10-14	6.7-12	---	4.5-6.0
	14-34	12-21	---	4.5-6.0
	34-46	---	2.9-8.4	4.5-6.0
	46-80	---	---	---
Helena-----	0-7	---	0.8-3.9	4.5-5.5
	7-12	---	3.9-8.4	4.5-5.5
	12-38	---	6.9-15	4.5-5.5
	38-80	---	2.9-8.4	4.5-5.5
RnC2:				
Rion-----	0-4	1.9-7.3	---	4.5-6.5
	4-25	---	3.5-8.4	4.5-6.5
	25-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5
RnD2:				
Rion-----	0-4	1.9-7.3	---	4.5-6.5
	4-25	---	3.5-8.4	4.5-6.5
	25-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5
RnE2:				
Rion-----	0-4	1.9-7.3	---	4.5-6.5
	4-25	---	3.5-8.4	4.5-6.5
	25-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
RnF2:				
Rion-----	0-4	1.9-7.3	---	4.5-6.5
	4-25	---	3.5-8.4	4.5-6.5
	25-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5
SaB:				
Santuc-----	0-3	---	0.3-1.9	4.0-5.5
	3-9	---	1.5-6.0	4.0-5.5
	9-26	---	1.9-8.4	4.0-5.5
	26-41	---	3.9-11	4.0-5.5
	41-51	---	1.9-6.4	4.0-5.5
	51-80	---	1.9-6.4	4.0-5.5
SaC:				
Santuc-----	0-3	---	0.3-1.9	4.0-5.5
	3-9	---	1.5-6.0	4.0-5.5
	9-26	---	1.9-8.4	4.0-5.5
	26-41	---	3.9-11	4.0-5.5
	41-51	---	1.9-6.4	4.0-5.5
	51-80	---	1.9-6.4	4.0-5.5
SeB:				
Sedgefield-----	0-10	4.3-11	---	4.5-6.5
	10-13	10-18	---	4.5-6.5
	13-28	18-31	---	4.5-6.5
	28-46	7.6-18	---	5.6-8.4
	32-80	5.1-13	---	5.6-8.4
ShA:				
Shellbluff-----	0-4	---	7.4-12	4.5-6.5
	4-44	---	5.3-18	4.5-6.5
	44-80	---	8.4-18	4.5-6.5
ToA:				
Toccoa-----	0-2	1.1-8.2	---	5.1-6.5
	2-42	---	0.4-8.9	5.1-6.5
	42-80	1.0-11	---	5.1-6.5
UcC2:				
Urban land.				
Cecil-----	0-6	---	0.8-4.0	4.5-6.0
	6-42	---	1.5-7.0	4.5-5.5
	42-80	---	1.0-6.0	4.5-5.5
UsC:				
Urban land.				
Cecil-----	0-6	---	0.8-4.0	4.5-6.0
	6-42	---	1.5-7.0	4.5-5.5
	42-80	---	1.0-6.0	4.5-5.5
Santuc-----	0-3	---	0.3-1.9	4.0-5.5
	3-9	---	1.5-6.0	4.0-5.5
	9-26	---	1.9-8.4	4.0-5.5
	26-41	---	3.9-11	4.0-5.5
	41-51	---	1.9-6.4	4.0-5.5
	51-80	---	1.9-6.4	4.0-5.5

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
WnB:				
Winnsboro-----	0-6	---	2.6-6.4	5.1-6.5
	6-30	18-32	---	6.1-7.8
	30-36	10-18	---	6.1-7.8
	36-41	7.6-18	---	6.1-7.8
	41-80	---	---	---
WoA:				
Worsham-----	0-5	5.4-14	---	4.5-7.8
	5-17	10-18	---	4.5-7.8
	17-53	---	12-30	4.5-7.8
	53-80	10-18	---	4.5-7.8
WwD2:				
Wynott-----	0-5	2.7-11	---	4.5-6.5
	5-21	18-34	---	4.5-6.5
	21-29	10-24	---	4.5-6.5
	29-80	---	---	---
Wilkes-----	0-4	2.7-11	---	5.1-6.5
	4-15	10-24	---	5.6-7.8
	15-18	5.1-16	---	5.6-7.8
	18-45	---	---	---
	45-80	---	---	---
WwE2:				
Wynott-----	0-5	2.7-11	---	4.5-6.5
	5-21	18-34	---	4.5-6.5
	21-29	10-24	---	4.5-6.5
	29-80	---	---	---
Wilkes-----	0-4	2.7-11	---	5.1-6.5
	4-15	10-24	---	5.6-7.8
	15-18	5.1-16	---	5.6-7.8
	18-45	---	---	---
	45-80	---	---	---
WyB2:				
Wynott-----	0-5	2.7-11	---	4.5-6.5
	5-21	18-34	---	4.5-6.5
	21-29	10-24	---	4.5-6.5
	29-80	---	---	---
Winnsboro-----	0-6	---	2.6-6.4	5.1-6.5
	6-30	18-32	---	6.1-7.8
	30-36	10-18	---	6.1-7.8
	36-41	7.6-18	---	6.1-7.8
	41-80	---	---	---
WyC2:				
Wynott-----	0-5	2.7-11	---	4.5-6.5
	5-21	18-34	---	4.5-6.5
	21-29	10-24	---	4.5-6.5
	29-80	---	---	---
Winnsboro-----	0-6	---	2.6-6.4	5.1-6.5
	6-30	18-32	---	6.1-7.8
	30-36	10-18	---	6.1-7.8
	36-41	7.6-18	---	6.1-7.8
	41-80	---	---	---

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	<u>Inches</u>	<u>meq/100 g</u>	<u>meq/100 g</u>	<u>pH</u>
1B:				
Appling-----	0-9	---	0.4-3.2	4.5-5.5
	9-33	---	1.5-7.5	4.5-5.5
	33-80	---	1.2-5.4	4.5-6.0
1C:				
Appling-----	0-9	---	0.4-3.2	4.5-5.5
	9-33	---	1.5-7.5	4.5-5.5
	33-80	---	1.2-5.4	4.5-6.0
2B2:				
Appling-----	0-3	---	1.0-5.2	4.5-5.5
	3-33	---	1.5-7.5	4.5-5.5
	33-80	---	1.2-5.4	4.5-6.0
2C2:				
Appling-----	0-3	---	1.0-5.2	4.5-5.5
	3-33	---	1.5-7.5	4.5-5.5
	33-80	---	1.2-5.4	4.5-6.0
3B:				
Buncombe-----	0-6	2.6-9.1	---	4.5-6.5
	6-80	2.0-8.6	---	4.5-6.5
5A:				
Cartecay-----	0-4	1.9-7.0	---	5.1-6.5
	4-21	2.2-6.5	---	5.1-6.5
	21-35	2.2-6.5	---	5.1-6.5
	35-80	0.7-5.8	---	5.1-6.5
7B:				
Cataula-----	0-5	---	0.8-4.0	4.5-6.5
	5-37	---	1.2-6.4	4.5-6.0
	37-80	---	1.3-6.5	4.5-6.0
8B2:				
Cataula-----	0-3	---	0.8-4.9	4.5-6.5
	3-29	---	1.2-6.4	4.5-6.0
	29-80	---	1.3-6.5	4.5-6.0
8C2:				
Cataula-----	0-3	---	0.8-4.9	4.5-6.5
	3-29	---	1.2-6.4	4.5-6.0
	29-80	---	1.3-6.5	4.5-6.0
10B:				
Cecil-----	0-6	---	0.7-3.9	4.5-6.0
	6-42	---	1.4-6.6	4.5-5.5
	42-80	---	1.0-5.2	4.5-5.5
10C:				
Cecil-----	0-6	---	0.7-3.9	4.5-6.0
	6-42	---	1.4-6.6	4.5-5.5
	42-80	---	1.0-5.2	4.5-5.5
11B2:				
Cecil-----	0-3	---	0.7-3.9	4.5-6.0
	3-48	---	1.4-6.6	4.5-5.5
	48-80	---	1.0-5.2	4.5-5.5

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
11C2: Cecil-----	0-3	---	0.7-3.9	4.5-6.0
	3-48	---	1.4-6.6	4.5-5.5
	48-80	---	1.0-5.2	4.5-5.5
11D2: Cecil-----	0-3	---	0.7-3.9	4.5-6.0
	3-48	---	1.4-6.6	4.5-5.5
	48-80	---	1.0-5.2	4.5-5.5
12B3: Cecil-----	0-1	---	1.1-5.3	4.5-5.5
	1-48	---	1.5-7.5	4.5-5.5
	48-80	---	1.0-5.2	4.5-5.5
12C3: Cecil-----	0-1	---	1.1-5.3	4.5-5.5
	1-48	---	1.5-7.5	4.5-5.5
	48-80	---	1.0-5.2	4.5-5.5
13A: Chenneby-----	0-4	---	2.9-9.1	5.1-6.0
	4-20	6.1-19	---	4.5-6.0
	20-41	6.1-19	---	4.5-6.0
	41-80	4.1-19	---	4.5-6.0
32B2: Hiwassee-----	0-4	2.0-6.5	---	4.5-6.5
	4-55	4.0-10	---	4.5-6.5
	55-80	3.0-8.5	---	4.5-6.5
32C2: Hiwassee-----	0-4	2.0-6.5	---	4.5-6.5
	4-55	4.0-10	---	4.5-6.5
	55-80	3.0-8.5	---	4.5-6.5
40B: Mecklenburg-----	0-8	4.3-11	---	5.1-6.5
	8-14	10-18	---	5.6-7.3
	14-38	20-31	---	5.6-7.3
	38-52	10-18	---	5.6-7.3
	52-80	4.1-16	---	5.6-7.3
41B2: Mecklenburg-----	0-4	4.3-11	---	5.1-6.5
	4-35	20-31	---	5.6-7.3
	35-50	10-18	---	5.6-7.3
	50-80	4.1-16	---	5.6-7.3
41C2: Mecklenburg-----	0-4	4.3-11	---	5.1-6.5
	4-35	20-31	---	5.6-7.3
	35-50	10-18	---	5.6-7.3
	50-80	4.1-16	---	5.6-7.3
41D2: Mecklenburg-----	0-4	4.3-11	---	5.1-6.5
	4-35	20-31	---	5.6-7.3
	35-50	10-18	---	5.6-7.3
	50-80	4.1-16	---	5.6-7.3

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	<u>Inches</u>	<u>meq/100 g</u>	<u>meq/100 g</u>	<u>pH</u>
44C2: Pacolet-----	0-2	---	0.8-4.0	4.5-6.5
	2-15	---	1.5-7.5	4.5-6.0
	15-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0
44D2: Pacolet-----	0-2	---	0.8-4.0	4.5-6.5
	2-15	---	1.5-7.5	4.5-6.0
	15-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0
44E2: Pacolet-----	0-2	---	0.8-4.0	4.5-6.5
	2-15	---	1.5-7.5	4.5-6.0
	15-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0
45D3: Pacolet-----	0-1	---	1.0-5.0	4.5-6.5
	1-15	---	1.5-7.5	4.5-6.0
	15-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0
45E3: Pacolet-----	0-1	---	1.0-5.0	4.5-6.5
	1-15	---	1.5-7.5	4.5-6.0
	15-43	---	1.2-6.3	4.5-6.0
	43-80	---	1.1-5.3	4.5-6.0
47C2: Rion-----	0-4	1.9-7.3	---	4.5-6.5
	4-20	---	3.5-8.4	4.5-6.5
	20-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5
47D2: Rion-----	0-4	1.9-7.3	---	4.5-6.5
	4-20	---	3.5-8.4	4.5-6.5
	20-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5
47E2: Rion-----	0-4	1.9-7.3	---	4.5-6.5
	4-20	---	3.5-8.4	4.5-6.5
	20-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5
48D3: Rion-----	0-2	7.1-13	---	4.5-6.5
	2-20	---	3.5-8.4	4.5-6.5
	20-35	---	3.5-8.4	4.5-6.5
	35-80	---	0.3-5.2	4.5-6.5

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
28B:				
Santuc-----	0-3	---	0.3-1.9	4.0-5.5
	3-9	---	1.5-6.0	4.0-5.5
	9-26	---	1.9-8.4	4.0-5.5
	26-41	---	3.9-11	4.0-5.5
	41-51	---	1.9-6.4	4.0-5.5
	51-80	---	1.9-6.4	4.0-5.5
28C:				
Santuc-----	0-3	---	0.3-1.9	4.0-5.5
	3-9	---	1.5-6.0	4.0-5.5
	9-26	---	1.9-8.4	4.0-5.5
	26-41	---	3.9-11	4.0-5.5
	41-51	---	1.9-6.4	4.0-5.5
	51-80	---	1.9-6.4	4.0-5.5
15A:				
Shellbluff-----	0-4	---	7.4-12	4.5-6.5
	4-44	---	5.3-18	4.5-6.5
	44-80	---	8.4-18	4.5-6.5
49A:				
Toccoa-----	0-2	1.1-8.2	---	5.1-6.5
	2-42	---	0.4-8.9	5.1-6.5
	42-80	1.0-11	---	5.1-6.5
50E:				
Udorthents-----	0-80	1.8-18	---	4.5-6.0
60C2:				
Wilkes-----	0-4	2.7-11	---	5.1-6.5
	4-15	10-24	---	5.6-7.8
	15-18	5.1-16	---	5.6-7.8
	18-45	---	---	---
	45-80	---	---	---
60D2:				
Wilkes-----	0-4	2.7-11	---	5.1-6.5
	4-15	10-24	---	5.6-7.8
	15-18	5.1-16	---	5.6-7.8
	18-45	---	---	---
	45-80	---	---	---
22B:				
Winnsboro-----	0-5	---	1.7-6.4	5.1-6.5
	5-25	18-32	---	6.1-7.8
	25-32	10-18	---	6.1-7.8
	32-52	7.6-18	---	6.1-7.8
	52-80	---	---	---
22C:				
Winnsboro-----	0-5	---	1.7-6.4	5.1-6.5
	5-25	18-32	---	6.1-7.8
	25-32	10-18	---	6.1-7.8
	32-52	7.6-18	---	6.1-7.8
	52-80	---	---	---

Soil Survey of Newberry County, South Carolina

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction
	<u>Inches</u>	<u>meq/100 g</u>	<u>meq/100 g</u>	<u>pH</u>
23B2: Winnsboro-----	0-4	---	1.7-6.4	5.1-6.5
	4-25	18-32	---	6.1-7.8
	25-32	10-18	---	6.1-7.8
	32-52	7.6-18	---	6.1-7.8
	52-80	---	---	---
23C2: Winnsboro-----	0-4	---	1.7-6.4	5.1-6.5
	4-25	18-32	---	6.1-7.8
	25-32	10-18	---	6.1-7.8
	32-52	7.6-18	---	6.1-7.8
	52-80	---	---	---
23D2: Winnsboro-----	0-4	---	1.7-6.4	5.1-6.5
	4-25	18-32	---	6.1-7.8
	25-32	10-18	---	6.1-7.8
	32-52	7.6-18	---	6.1-7.8
	52-80	---	---	---
24D3: Winnsboro-----	0-4	---	1.7-6.4	5.1-6.5
	4-25	18-32	---	6.1-7.8
	25-32	10-18	---	6.1-7.8
	32-52	7.6-18	---	6.1-7.8
	52-80	---	---	---

Table 19.—Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	
AtB: Altavista-----	C	Very high		<u>Ft</u>	<u>Ft</u>	<u>Ft</u>					
			Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	>6.0 ---	---	---	None None	---	None None	
CaB: Callison-----	C	Medium									
			Dec.-Mar. Apr.-Nov.	1.5-3.0 ---	1.7-3.3 ---	---	---	None None	---	None None	
CaC: Callison-----	C	High									
			Dec.-Mar. Apr.-Nov.	1.5-3.0 ---	1.7-3.3 ---	---	---	None None	---	None None	
CcA: Cartecay-----	C	Very high									
			Dec.-Mar. Apr.-Nov.	0.5-1.5 ---	>6.0 ---	---	---	None None	Very brief Very brief	Frequent Frequent	
CdB2: Cataula-----	B	Medium									
			Dec.-Mar. Apr.-Nov.	2.0-4.0 ---	3.0-4.9 ---	---	---	None None	---	None None	
CdC2: Cataula-----	B	High									
			Dec.-Mar. Apr.-Nov.	2.0-4.0 ---	3.0-4.9 ---	---	---	None None	---	None None	
CeB: Cecil-----	B	Low									
			Jan.-Dec.	---	---	---	---	None	---	None	
CfB2: Cecil-----	B	Low									
			Jan.-Dec.	---	---	---	---	None	---	None	

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				<u>Ft</u>	<u>Ft</u>	<u>Ft</u>				
CfC2: Cecil-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
CfD2: Cecil-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
CnA: Chenneby-----	C	Low	Dec.-Mar. Apr.-Nov.	1.0-2.5 ---	>6.0 ---	---	---	None None	Very brief Very brief	Frequent Frequent
CyA: Chenneby-----	C	Negligible	Jan.-Dec.	0.0	>6.0	1.0-1.5	Very long	Frequent	---	None
DaB2: Davidson-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None
GaB2: Georgeville-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None
GaC2: Georgeville-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
GnC2: Gundy-----	C	Medium	Jan.-Dec.	---	---	---	---	None	---	None
GnD2: Gundy-----	C	Medium	Jan.-Dec.	---	---	---	---	None	---	None
GnE2: Gundy-----	C	High	Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	
				<u>Ft</u>	<u>Ft</u>						<u>Ft</u>
HaB: Hard Labor-----	B	Low									
			Dec.-Mar. Apr.-Nov.	2.5-5.0 ---	5.0-5.0 ---	---	---	None None	---	None None	
HaC: Hard Labor-----	B	Medium									
			Dec.-Mar. Apr.-Nov.	2.5-5.0 ---	5.0-5.0 ---	---	---	None None	---	None None	
HeB: Helena-----	C	Low									
			Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	3.0-5.0 ---	---	---	None None	---	None None	
HeC: Helena-----	C	Medium									
			Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	3.0-5.0 ---	---	---	None None	---	None None	
HwB2: Hiwassee-----	B	Low									
			Jan.-Dec.	---	---	---	---	None	---	None	
HwD2: Hiwassee-----	B	Medium									
			Jan.-Dec.	---	---	---	---	None	---	None	
McB: Mecklenburg-----	C	Low									
			Jan.-Dec.	---	---	---	---	None	---	None	
MeB2: Mecklenburg-----	C	Low									
			Jan.-Dec.	---	---	---	---	None	---	None	
MeC2: Mecklenburg-----	C	Medium									
			Jan.-Dec.	---	---	---	---	None	---	None	
PaD2: Pacolet-----	B	Medium									
			Jan.-Dec.	---	---	---	---	None	---	None	

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
PaE2: Pacolet-----	B	High	Jan.-Dec.	---	---	Ft ---	---	None	---	None
PaF2: Pacolet-----	B	High	Jan.-Dec.	---	---	---	---	None	---	None
PcC3: Pacolet-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
PmB: Prosperity-----	C	Medium	Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	1.7-3.3 ---	---	---	None None	---	None None
Bush River-----	C	Low	Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	3.3-5.0 ---	---	---	None None	---	None None
Helena-----	C	Low	Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	3.0-5.0 ---	---	---	None None	---	None None
PmC: Prosperity-----	C	High	Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	1.7-3.3 ---	---	---	None None	---	None None
Bush River-----	C	Medium	Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	3.3-5.0 ---	---	---	None None	---	None None
Helena-----	C	Medium	Dec.-Mar. Apr.-Nov.	1.5-2.5 ---	3.0-5.0 ---	---	---	None None	---	None None
RnC2: Rion-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		Flooding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
RnD2: Rion-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
RnE2: Rion-----	B	High	Jan.-Dec.	---	---	---	---	None	---	None
RnF2: Rion-----	B	High	Jan.-Dec.	---	---	---	---	None	---	None
SaB: Santuc-----	C	Low	Dec.-Mar. Apr.-Nov.	1.5-3.0 ---	3.3-5.0 ---	---	---	None None	---	None None
SaC: Santuc-----	C	Medium	Dec.-Mar. Apr.-Nov.	1.5-3.0 ---	3.3-5.0 ---	---	---	None None	---	None None
SeB: Sedgefield-----	C	Very high	Dec.-Mar. Apr.-Nov.	1.0-1.5 ---	1.7-3.3 ---	---	---	None None	---	None None
ShA: Shellbluff-----	B	Low	Dec.-Mar. Apr.-Nov.	2.5-5.0 ---	>6.0 ---	---	---	None None	Very brief Very brief	Frequent Frequent
ToA: Toccoa-----	B	Very low	Dec.-Mar. Apr.-Nov.	2.5-5.0 ---	>6.0 ---	---	---	None None	Very brief Very brief	Frequent Frequent
UcC2: Urban land. Cecil-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
UsC: Urban land.				<u>Ft</u>	<u>Ft</u>	<u>Ft</u>				
Cecil-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None
Santuc-----	C	Low	Dec.-Mar. Apr.-Nov.	1.5-3.0 ---	3.3-5.0 ---	---	---	None None	---	None None
WnB: Winnsboro-----	C	Low	Jan.-Dec.	---	---	---	---	None	---	None
WoA: Worsham-----	D	Very high	Dec.-Mar. Apr.-Nov.	0.0-1.0 ---	>6.0 ---	---	---	None None	---	None None
WwD2: Wynott-----	C	High	Jan.-Dec.	---	---	---	---	None	---	None
Wilkes-----	C	High	Jan.-Dec.	---	---	---	---	None	---	None
WwE2: Wynott-----	C	Very high	Jan.-Dec.	---	---	---	---	None	---	None
Wilkes-----	C	Very high	Jan.-Dec.	---	---	---	---	None	---	None
WyB2: Wynott-----	C	Medium	Jan.-Dec.	---	---	---	---	None	---	None
Winnsboro-----	C	Low	Jan.-Dec.	---	---	---	---	None	---	None
Wyc2: Wynott-----	C	High	Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	
				<u>Ft</u>	<u>Ft</u>	<u>Ft</u>					
WyC2: Winnsboro-----	C	Medium	Jan.-Dec.	---	---	---	---	None	---	None	
1B: Appling-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None	
1C: Appling-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None	
2B2: Appling-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None	
2C2: Appling-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None	
3B: Buncombe-----	A	Very low	Jan.-Dec.	---	---	---	---	None	Very brief	Rare	
5A: Cartecay-----	C	Very high	Dec.-Mar. Apr.-Nov.	0.5-1.5 ---	>6.0 ---	---	---	None None	Very brief Very brief	Occasional Occasional	
7B: Cataula-----	B	Medium	Dec.-Mar. Apr.-Nov.	2.0-4.0 ---	3.0-4.9 ---	---	---	None None	---	None None	
8B2: Cataula-----	B	Medium	Dec.-Mar. Apr.-Nov.	2.0-4.0 ---	3.0-4.9 ---	---	---	None None	---	None None	
8C2: Cataula-----	B	High	Dec.-Mar. Apr.-Nov.	2.0-4.0 ---	3.0-4.9 ---	---	---	None None	---	None None	

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
10B: Cecil-----	B	Low	Jan.-Dec.	<u>Ft</u> ---	<u>Ft</u> ---	<u>Ft</u> ---	---	None	---	None
10C: Cecil-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
11B2: Cecil-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None
11C2: Cecil-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
11D2: Cecil-----	B	High	Jan.-Dec.	---	---	---	---	None	---	None
12B3: Cecil-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None
12C3: Cecil-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
13A: Chenneby-----	C	Low	Dec.-Mar. Apr.-Nov.	1.0-2.5 ---	>6.0 ---	---	---	None None	Very brief Very brief	Occasional Occasional
32B2: Hiwassee-----	B	Low	Jan.-Dec.	---	---	---	---	None	---	None
32C2: Hiwassee-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None
40B: Mecklenburg-----	C	Low	Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	
				<u>Ft</u>	<u>Ft</u>	<u>Ft</u>					
41B2: Mecklenburg-----	C	Low		---	---	---					
41C2: Mecklenburg-----	C	Medium	Jan. -Dec.	---	---	---			None	---	None
41D2: Mecklenburg-----	C	High	Jan. -Dec.	---	---	---			None	---	None
44C2: Pacolet-----	B	Medium	Jan. -Dec.	---	---	---			None	---	None
44D2: Pacolet-----	B	High	Jan. -Dec.	---	---	---			None	---	None
44E2: Pacolet-----	B	High	Jan. -Dec.	---	---	---			None	---	None
45D3: Pacolet-----	B	High	Jan. -Dec.	---	---	---			None	---	None
45E3: Pacolet-----	B	High	Jan. -Dec.	---	---	---			None	---	None
47C2: Rion-----	B	Medium	Jan. -Dec.	---	---	---			None	---	None
47D2: Rion-----	B	High	Jan. -Dec.	---	---	---			None	---	None
47E2: Rion-----	B	High	Jan. -Dec.	---	---	---			None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency	
48D3: Rion-----	B	High	Jan.-Dec.	---	---	---	---	None	---	None	
28B: Santuc-----	C	Low	Dec.-Mar. Apr.-Nov.	1.5-3.0 ---	3.3-5.0 ---	---	---	None None	---	None None	
28C: Santuc-----	C	Medium	Dec.-Mar. Apr.-Nov.	1.5-3.0 ---	3.3-5.0 ---	---	---	None None	---	None None	
15A: Shellbluff-----	B	Low	Dec.-Mar. Apr.-Nov.	2.5-5.0 ---	>6.0 ---	---	---	None None	Very brief Very brief	Occasional Occasional	
49A: Toccoa-----	B	Very low	Dec.-Mar. Apr.-Nov.	2.5-5.0 ---	>6.0 ---	---	---	None None	Very brief Very brief	Occasional Occasional	
50E: Udorthents-----	B	Medium	Jan.-Dec.	---	---	---	---	None	---	None	
60C2: Wilkes-----	C	High	Jan.-Dec.	---	---	---	---	None	---	None	
60D2: Wilkes-----	C	Very high	Jan.-Dec.	---	---	---	---	None	---	None	
22B: Winnsboro-----	C	Low	Jan.-Dec.	---	---	---	---	None	---	None	
22C: Winnsboro-----	C	Medium	Jan.-Dec.	---	---	---	---	None	---	None	

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				<u>Ft</u>	<u>Ft</u>	<u>Ft</u>				
23B2: Winnsboro-----	C	Low	Jan. -Dec.	---	---	---	---	None	---	None
23C2: Winnsboro-----	C	Medium	Jan. -Dec.	---	---	---	---	None	---	None
23D2: Winnsboro-----	C	High	Jan. -Dec.	---	---	---	---	None	---	None
24D3: Winnsboro-----	C	High	Jan. -Dec.	---	---	---	---	None	---	None

Soil Survey of Newberry County, South Carolina

Table 20.—Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Hardness		Uncoated steel	Concrete
AtB: Altavista-----	---	---	---	None	Moderate	Moderate
CaB, CaC: Callison-----	Paralithic bedrock	20-40	Weakly cemented	None	Moderate	High
	Lithic bedrock	40-60	Indurated			
CcA: Cartecay-----	---	---	---	None	Low	Moderate
CdB2, CdC2: Cataula-----	---	---	---	None	High	High
CeB: Cecil-----	---	---	---	None	High	High
CfB2, CfC2, CfD2: Cecil-----	---	---	---	None	High	High
CnA: Chenneby-----	---	---	---	None	High	Moderate
CyA: Chenneby-----	---	---	---	None	High	Moderate
DaB2: Davidson-----	---	---	---	None	High	Moderate
GaB2, GaC2: Georgeville-----	---	---	---	None	High	High
GnC2, GnD2, GnE2: Gundy-----	Paralithic bedrock	40-60	Weakly cemented	None	High	High
HaB, HaC: Hard Labor-----	---	---	---	None	High	High
HeB, HeC: Helena-----	---	---	---	None	High	High
HwB2, HwD2: Hiwassee-----	---	---	---	None	Moderate	Moderate
McB: Mecklenburg-----	---	---	---	None	High	Moderate
MeB2, MeC2: Mecklenburg-----	---	---	---	None	High	Moderate
PaD2, PaE2, PaF2: Pacolet-----	---	---	---	None	High	High

Soil Survey of Newberry County, South Carolina

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top In	Hardness		Uncoated steel	Concrete
PcC3: Pacolet-----	---	---	---	None	High	High
PmB, PmC: Prosperity-----	Paralithic bedrock	20-40	Moderately cemented	None	High	High
Bush River-----	Paralithic bedrock	40-60	Moderately cemented	None	High	High
Helena-----	---	---	---	None	High	High
RnC2, RnD2, RnE2, RnF2: Rion-----	---	---	---	None	Moderate	High
SaB, SaC: Santuc-----	---	---	---	None	High	High
SeB: Sedgefield-----	---	---	---	None	High	Moderate
ShA: Shellbluff-----	---	---	---	None	Moderate	Moderate
ToA: Toccoa-----	---	---	---	None	Low	Moderate
UcC2: Urban land-----	---	---	---	None	---	---
Cecil-----	---	---	---	None	High	High
UsC: Urban land-----	---	---	---	None	---	---
Cecil-----	---	---	---	None	High	High
Santuc-----	---	---	---	None	High	High
WnB: Winnsboro-----	Paralithic bedrock	40-60	Weakly cemented	None	High	Moderate
WoA: Worsham-----	---	---	---	None	High	Moderate
WwD2, WwE2: Wynott-----	Paralithic bedrock	20-40	Weakly cemented	None	High	Moderate
Wilkes-----	Paralithic bedrock	10-20	Weakly cemented	None	Moderate	Moderate
	Lithic bedrock	40-72	Indurated			

Soil Survey of Newberry County, South Carolina

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Hardness		Uncoated steel	Concrete
WyB2, WyC2: Wynott-----	Paralithic bedrock	20-40	Weakly cemented	None	High	Moderate
Winnsboro-----	Paralithic bedrock	40-60	Weakly cemented	None	High	Moderate
1B, 1C: Appling-----	---	---	---	None	Moderate	Moderate
2B2, 2C2: Appling-----	---	---	---	None	Moderate	Moderate
3B: Buncombe-----	---	---	---	None	Low	Moderate
5A: Cartecay-----	---	---	---	None	Low	Moderate
7B: Cataula-----	---	---	---	None	High	High
8B2, 8C2: Cataula-----	---	---	---	None	High	High
10B, 10C: Cecil-----	---	---	---	None	High	High
11B2, 11C2, 11D2: Cecil-----	---	---	---	None	High	High
12B3, 12C3: Cecil-----	---	---	---	None	High	High
13A: Chenneby-----	---	---	---	None	High	Moderate
32B2, 32C2: Hiwassee-----	---	---	---	None	Moderate	Moderate
40B: Mecklenburg-----	---	---	---	None	High	Moderate
41B2, 41C2, 41D2: Mecklenburg-----	---	---	---	None	High	Moderate
44C2, 44D2, 44E2: Pacolet-----	---	---	---	None	High	High
45D3, 45E3: Pacolet-----	---	---	---	None	High	High
47C2, 47D2, 47E2: Rion-----	---	---	---	None	Moderate	High
48D3: Rion-----	---	---	---	None	Moderate	High

Soil Survey of Newberry County, South Carolina

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer			Potential for frost action	Risk of corrosion	
	Kind	Depth to top <u>In</u>	Hardness		Uncoated steel	Concrete
28B, 28C: Santuc-----	---	---	---	None	High	High
15A: Shellbluff-----	---	---	---	None	Moderate	Moderate
49A: Toccoa-----	---	---	---	None	Low	Moderate
50E: Udorthents-----	---	---	---	None	Moderate	High
60C2, 60D2: Wilkes-----	Paralithic bedrock	10-20	Weakly cemented	None	Moderate	Moderate
	Lithic bedrock	40-72	Indurated			
22B, 22C: Winnsboro-----	Paralithic bedrock	40-60	Weakly cemented	None	High	Moderate
23B2, 23C2, 23D2: Winnsboro-----	Paralithic bedrock	40-60	Weakly cemented	None	High	Moderate
24D3: Winnsboro-----	Paralithic bedrock	40-60	Weakly cemented	None	High	Moderate

Soil Survey of Newberry County, South Carolina

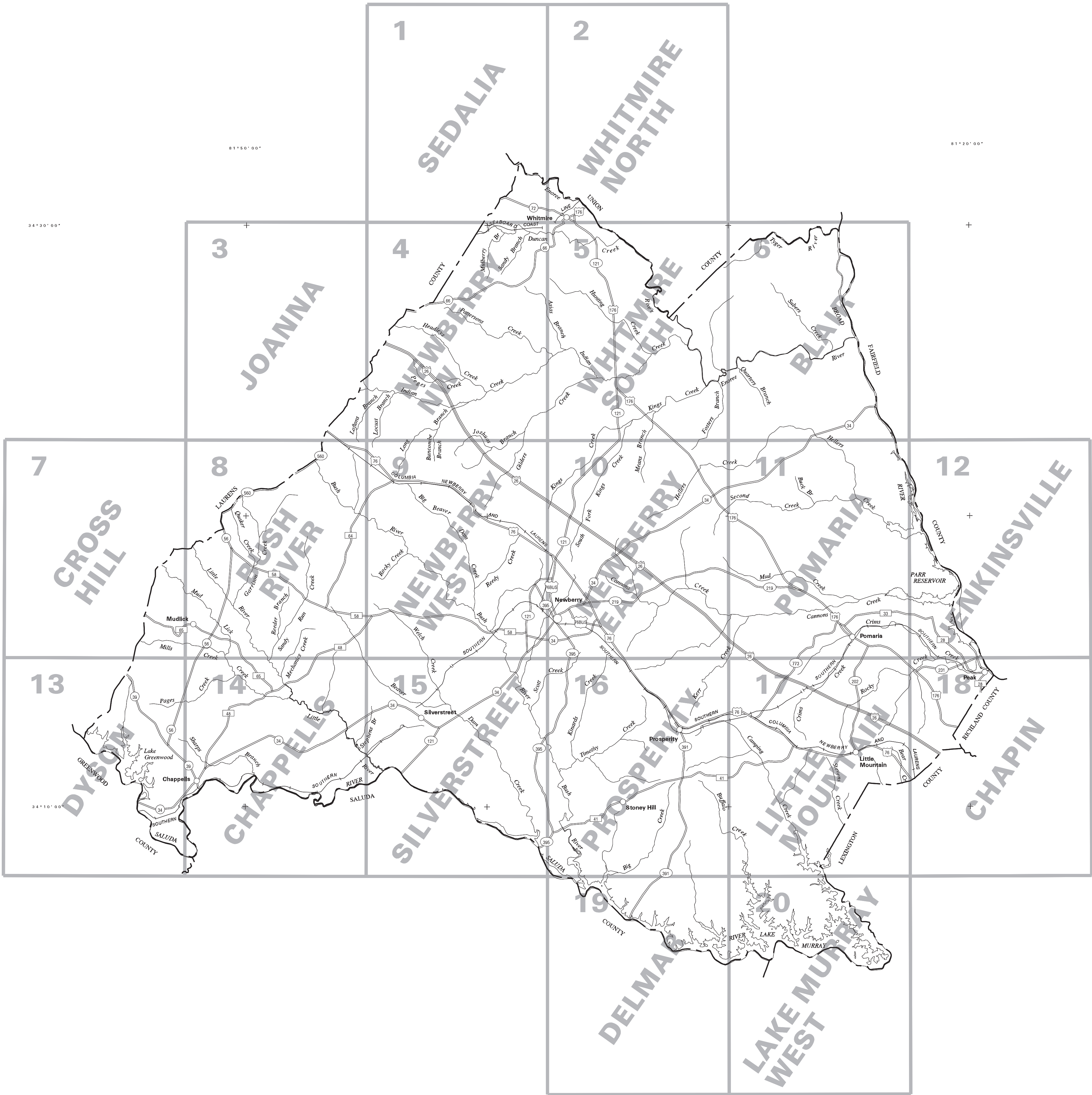
Table 21.--Taxonomic Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series)

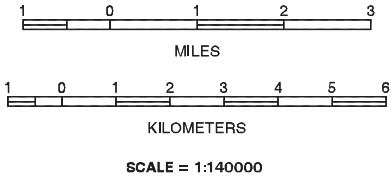
Soil name	Family or higher taxonomic class
Altavista-----	Fine-loamy, mixed, semiactive, thermic Aquic Hapludults
Appling-----	Fine, kaolinitic, thermic Typic Kanhapludults
Buncombe-----	Mixed, thermic Typic Udipsamments
Bush River-----	Fine, mixed, semiactive, thermic Aquic Hapludults
Callison-----	Fine-silty, siliceous, semiactive, thermic Aquic Hapludults
Cartecay-----	Coarse-loamy, mixed, semiactive, nonacid, thermic Aquic Udifluvents
Cataula-----	Fine, kaolinitic, thermic Oxyaquic Kanhapludults
Cecil-----	Fine, kaolinitic, thermic Typic Kanhapludults
Chenneby-----	Fine-silty, mixed, active, thermic Fluvaquentic Dystrudepts
Davidson-----	Fine, kaolinitic, thermic Rhodic Kandiudults
Georgeville-----	Fine, kaolinitic, thermic Typic Kanhapludults
Gundy-----	Fine, mixed, semiactive, thermic Ultic Hapludalfs
Hard Labor-----	Fine, kaolinitic, thermic Oxyaquic Kanhapludults
Helena-----	Fine, mixed, semiactive, thermic Aquic Hapludults
Hiwassee-----	Fine, kaolinitic, thermic Rhodic Kanhapludults
Mecklenburg-----	Fine, mixed, active, thermic Ultic Hapludalfs
Pacolet-----	Fine, kaolinitic, thermic Typic Kanhapludults
Prosperity-----	Fine, mixed, semiactive, thermic Aquic Hapludults
Rion-----	Fine-loamy, mixed, semiactive, thermic Typic Hapludults
Santuc-----	Fine-loamy, mixed, semiactive, thermic Aquic Hapludults
Sedgefield-----	Fine, mixed, active, thermic Aquultic Hapludalfs
Shellbluff-----	Fine-silty, mixed, active, thermic Oxyaquic Dystrudepts
Toccoa-----	Coarse-loamy, mixed, active, nonacid, thermic Typic Udifluvents
Udorthents-----	Udorthents
Wilkes-----	Loamy, mixed, active, thermic, shallow Typic Hapludalfs
Winnsboro-----	Fine, mixed, active, thermic Typic Hapludalfs
*Worsham-----	Fine, mixed, active, thermic Typic Endoaqualfs
Wynott-----	Fine, mixed, active, thermic Typic Hapludalfs

NRCS Accessibility Statement

The Natural Resources Conservation Service (NRCS) is committed to making its information accessible to all of its customers and employees. If you are experiencing accessibility issues and need assistance, please contact our Helpdesk by phone at 1-800-457-3642 or by e-mail at ServiceDesk-FTC@ftc.usda.gov. For assistance with publications that include maps, graphs, or similar forms of information, you may also wish to contact our State or local office. You can locate the correct office and phone number at <http://offices.sc.egov.usda.gov/locator/app>.



INDEX TO MAP SHEETS
NEWBERRY COUNTY, SOUTH CAROLINA



SOIL LEGEND

Map unit names and symbols are alphabetical. Map symbols are letters or a combination of letters and numbers. The first letter is capitalized and is the first letter of the series (or miscellaneous area) name. The second letter is lowercase. The third letter, if used, is capitalized and denotes the slope phase. The number 2 is used at the end of several map unit symbols and denotes a moderately eroded phase. The number 3 is used at the end of several map unit symbols and denotes a severely eroded phase.

A portion of Newberry County was mapped as part of the Sumter National Forest project. In this area, map unit symbols are numbers and letters. The letter is capitalized and denotes the slope phase. The number 2 is used at the end of several map unit symbols and denotes a moderately eroded phase. The number 3 is used at the end of several map unit symbols and denotes a severely eroded phase.

LEGEND FOR SUMTER NATIONAL FOREST

SYMBOL	NAME	SYMBOL	NAME
AtB	Altavista sandy loam, 2 to 6 percent slopes	1B	Appling loamy sand, 2 to 7 percent slopes
CaB	Callison silt loam, 2 to 6 percent slopes	1C	Appling loamy sand, 7 to 15 percent slopes
CaC	Callison silt loam, 6 to 10 percent slopes	2B2	Appling sandy clay loam, 2 to 7 percent slopes, moderately eroded
CcA	Cartecay sandy loam, 0 to 2 percent slopes, frequently flooded	2C2	Appling sandy clay loam, 7 to 15 percent slopes, moderately eroded
CdB2	Cataula sandy loam, 2 to 6 percent slopes, moderately eroded	3B	Buncombe coarse sand, 0 to 3 percent slopes, rarely flooded
CdC2	Cataula sandy loam, 6 to 10 percent slopes, moderately eroded	5A	Cartecay sandy loam, 0 to 2 percent slopes, occasionally flooded
CeB	Cecil sandy loam, 2 to 6 percent slopes	7B	Cataula sandy loam, 2 to 7 percent slopes
CfB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	8B2	Cataula sandy clay loam, 2 to 7 percent slopes, moderately eroded
CfC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	8C2	Cataula sandy clay loam, 7 to 15 percent slopes, moderately eroded
CfD2	Cecil sandy clay loam, 10 to 15 percent slopes, moderately eroded	10B	Cecil sandy loam, 2 to 7 percent slopes
CnA	Chenneby silt loam, 0 to 2 percent slopes, frequently flooded	10C	Cecil sandy loam, 7 to 15 percent slopes
CyA	Chenneby silt loam, 0 to 2 percent slopes, ponded	11B2	Cecil sandy clay loam, 2 to 7 percent slopes, moderately eroded
DaB2	Davidson sandy clay loam, 2 to 6 percent slopes, moderately eroded	11C2	Cecil sandy clay loam, 7 to 15 percent slopes, moderately eroded
GaB2	Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded	11D2	Cecil sandy clay loam, 15 to 25 percent slopes, moderately eroded
GaC2	Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded	12B3	Cecil clay loam, 2 to 7 percent slopes, severely eroded
GnC2	Gundy silt loam, 6 to 10 percent slopes, moderately eroded	12C3	Cecil clay loam, 7 to 15 percent slopes, severely eroded
GnD2	Gundy silt loam, 10 to 15 percent slopes, moderately eroded	13A	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded
GnE2	Gundy silt loam, 15 to 25 percent slopes, moderately eroded	15A	Shellbluff silty clay loam, 0 to 2 percent slopes, occasionally flooded
HaB	Hard Labor sandy loam, 2 to 6 percent slopes	22B	Winnsboro sandy loam, 2 to 7 percent slopes
HaC	Hard Labor sandy loam, 6 to 10 percent slopes	22C	Winnsboro sandy loam, 7 to 15 percent slopes
HeB	Helena sandy loam, 2 to 6 percent slopes	23B2	Winnsboro sandy clay loam, 2 to 7 percent slopes, moderately eroded
HeC	Helena sandy loam, 6 to 10 percent slopes	23C2	Winnsboro sandy clay loam, 7 to 15 percent slopes, moderately eroded
HwB2	Hiwassee sandy loam, 2 to 6 percent slopes, moderately eroded	23D2	Winnsboro sandy clay loam, 15 to 25 percent slopes, moderately eroded
HwD2	Hiwassee sandy loam, 6 to 15 percent slopes, moderately eroded	24D3	Winnsboro sandy clay loam, 15 to 25 percent slopes, severely eroded
McB	Mecklenburg sandy loam, 2 to 6 percent slopes	28B	Santuc loamy coarse sand, 2 to 7 percent slopes
MeB2	Mecklenburg sandy clay loam, 2 to 6 percent slopes, moderately eroded	28C	Santuc loamy coarse sand, 7 to 15 percent slopes
MeC2	Mecklenburg sandy clay loam, 6 to 10 percent slopes, moderately eroded	32B2	Hiwassee sandy clay loam, 2 to 7 percent slopes, moderately eroded
PaD2	Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded	32C2	Hiwassee sandy clay loam, 7 to 15 percent slopes, moderately eroded
PaE2	Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded	40B	Mecklenburg sandy loam, 2 to 7 percent slopes
PaF2	Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded	41B2	Mecklenburg sandy clay loam, 2 to 7 percent slopes, moderately eroded
PcC3	Pacolet clay loam, 6 to 10 percent slopes, severely eroded	41C2	Mecklenburg sandy clay loam, 7 to 15 percent slopes, moderately eroded
PmB	Prosperity-Bush River-Helena complex, 2 to 6 percent slopes	41D2	Mecklenburg sandy clay loam, 15 to 25 percent slopes, moderately eroded
PmC	Prosperity-Bush River-Helena complex, 6 to 10 percent slopes	44C2	Pacolet sandy clay loam, 7 to 15 percent slopes, moderately eroded
RnC2	Rion sandy loam, 6 to 10 percent slopes, moderately eroded	44D2	Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded
RnD2	Rion sandy loam, 10 to 15 percent slopes, moderately eroded	44E2	Pacolet sandy clay loam, 25 to 50 percent slopes, moderately eroded
RnE2	Rion sandy loam, 15 to 25 percent slopes, moderately eroded	45D3	Pacolet clay loam, 15 to 25 percent slopes, severely eroded
RnF2	Rion sandy loam, 25 to 50 percent slopes, moderately eroded	45E3	Pacolet clay loam, 25 to 50 percent slopes, severely eroded
SaB	Santuc loamy coarse sand, 2 to 6 percent slopes	47C2	Rion sandy loam, 7 to 15 percent slopes, moderately eroded
SaC	Santuc loamy coarse sand, 6 to 10 percent slopes	47D2	Rion sandy loam, 15 to 25 percent slopes, moderately eroded
SeB	Sedgefield sandy loam, 0 to 4 percent slopes	47E2	Rion sandy loam, 25 to 50 percent slopes, moderately eroded
ShA	Shellbluff silty clay loam, 0 to 2 percent slopes, frequently flooded	48D3	Rion sandy clay loam, 15 to 25 percent slopes, severely eroded
ToA	Toccoa sandy loam, 0 to 3 percent slopes, frequently flooded	49A	Toccoa sandy loam, 0 to 2 percent slopes, occasionally flooded
UcC2	Urban land-Cecil complex, 2 to 10 percent slopes, moderately eroded	50E	Udorthents, 5 to 30 percent slopes
UsC	Urban land-Cecil-Santuc complex, 2 to 10 percent slopes	60C2	Wilkes sandy loam, 7 to 15 percent slopes, moderately eroded
W	Water	60D2	Wilkes sandy loam, 15 to 25 percent slopes, moderately eroded
WnB	Winnsboro sandy loam, 2 to 6 percent slopes		
WoA	Worsham loam, 0 to 2 percent slopes		
WwD2	Wynott-Wilkes complex, 10 to 15 percent slopes, moderately eroded		
WwE2	Wynott-Wilkes complex, 15 to 25 percent slopes, moderately eroded		
WyB2	Wynott-Winnsboro complex, 2 to 6 percent slopes, moderately eroded		
WyC2	Wynott-Winnsboro complex, 6 to 10 percent slopes, moderately eroded		

CONVENTIONAL AND SPECIAL
SYMBOLS LEGEND

SOIL SURVEY FEATURES		CULTURAL FEATURES		HYDROGRAPHIC FEATURES
SOIL DELINEATIONS AND SYMBOLS		BOUNDARIES		STREAMS
MISCELLANEOUS LANDFORM FEATURES		County or parish		Unclassified stream
				Label only
Gravelly spot		TRANSPORTATION		
Gully		ROAD EMBLEM & DESIGNATIONS		
Mine or quarry		Interstate		
Perennial water		Federal		
Rock outcrop		State		
Sandy spot				
Short steep slope				
Stony spot				
Very stony spot				
Wet spot				
AD HOC FEATURES				
Lagoon				



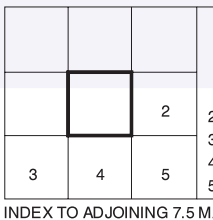
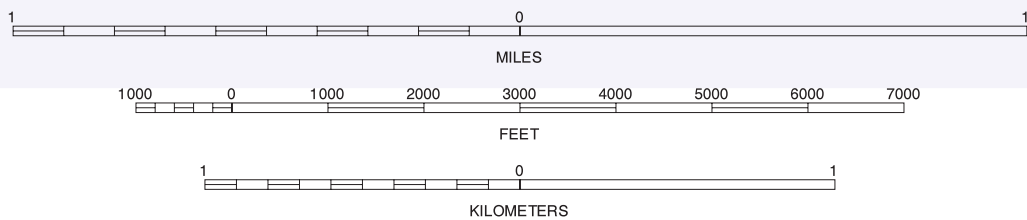
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION



SEDALIA, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 1 OF 20

Soil map delineations extending beyond the dashed white quadrangle neartline are for reference only and are included on adjacent map sheets.



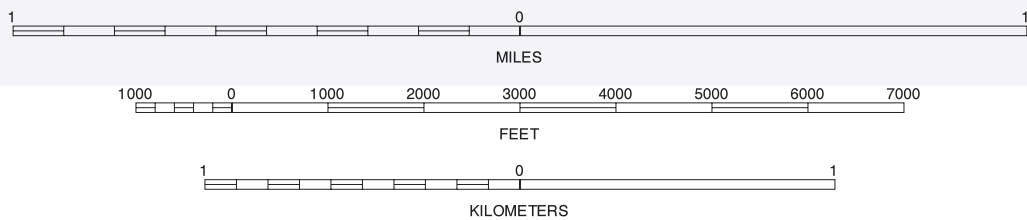
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid
1000-meter ticks: Universal Transverse Mercator, zone 17.
Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION



1	2	3
4	5	6

INDEX TO ADJOINING 7.5 MAPS

- 1 SEDALIA
- 4 NEWBERRY NW
- 5 WHITMIRE SOUTH
- 6 BLAIR

WHITMIRE NORTH, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 2 OF 20

Soil map delineations extending beyond the dashed white quadrangle nealline are for reference only and are included on adjacent map sheets.



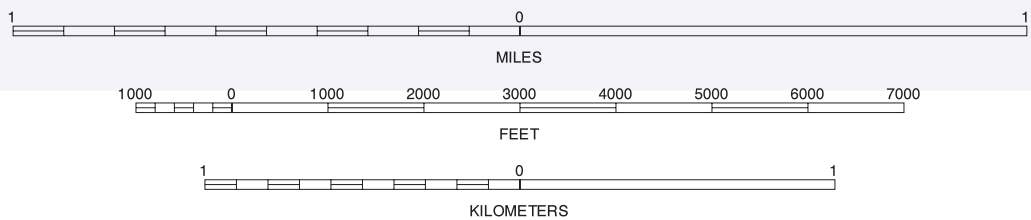
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

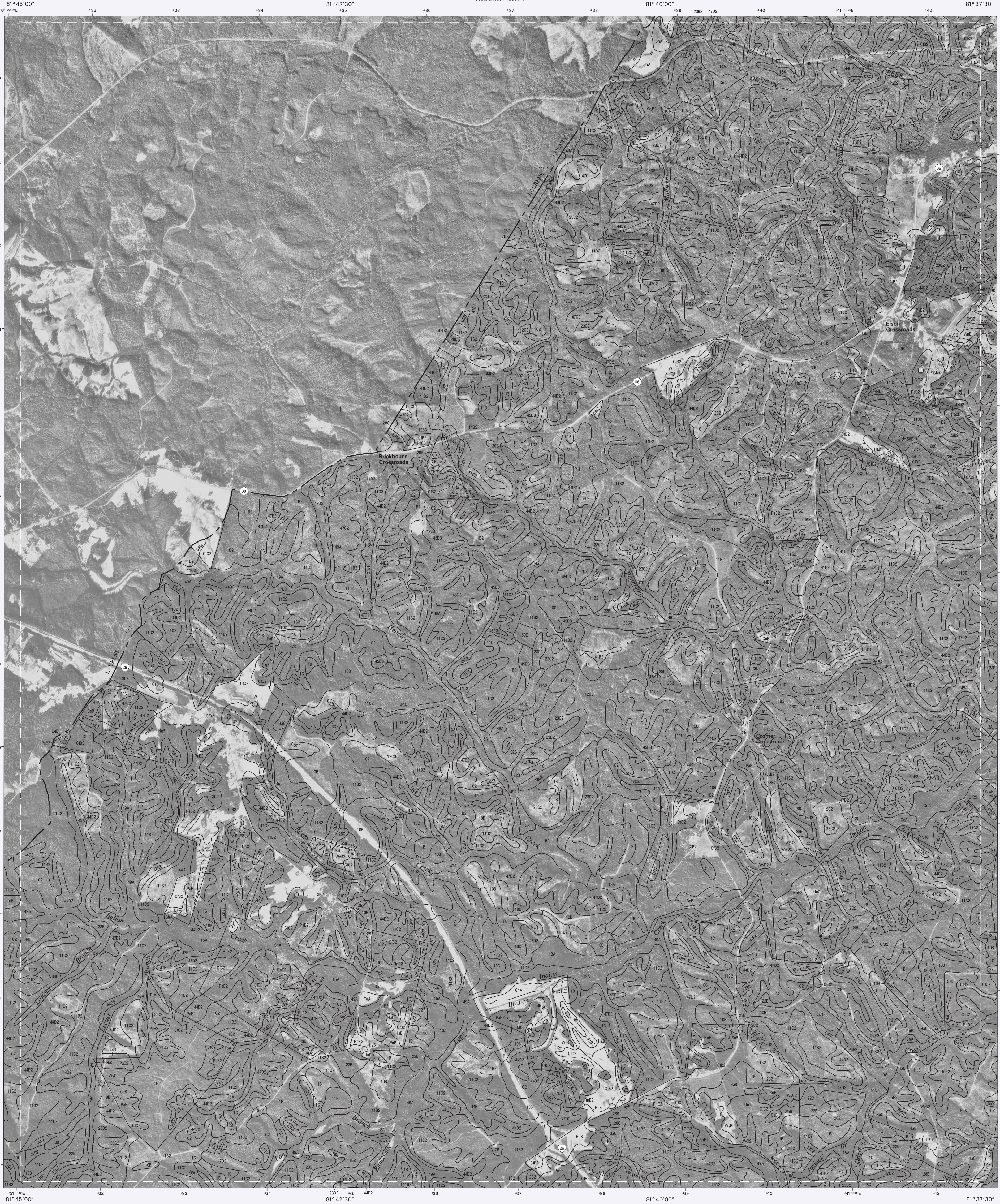


1	SEDALIA
4	NEWBERRY NW
7	CROSS HILL
8	BUSH RIVER
9	NEWBERRY WEST

INDEX TO ADJOINING 7.5 MAPS

JOANNA, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 3 OF 20

Soil map delineations extending beyond the dashed white quadrangle neartine are for reference only and are included on adjacent map sheets.



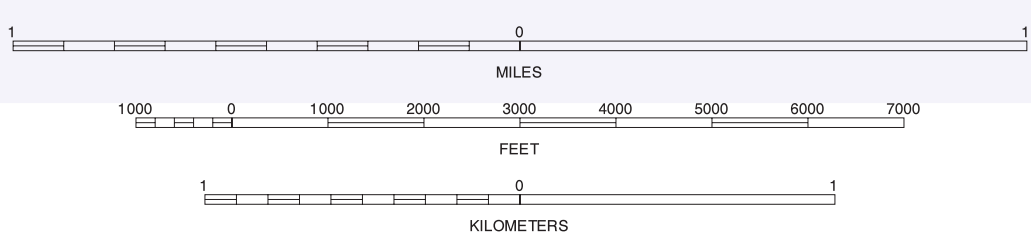
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid
1000-meter ticks: Universal Transverse Mercator, zone 17.
Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION



SCALE 1:24000

1	2
3	5
8	10

INDEX TO ADJOINING 7.5 MAPS

- 1 SEDALIA
- 2 WHITMORE NORTH
- 3 JOANNA
- 4 WHITMORE SOUTH
- 5 BUSH RIVER
- 6 NEWBERRY WEST
- 7 NEWBERRY EAST

NEWBERRY NW, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 4 OF 20

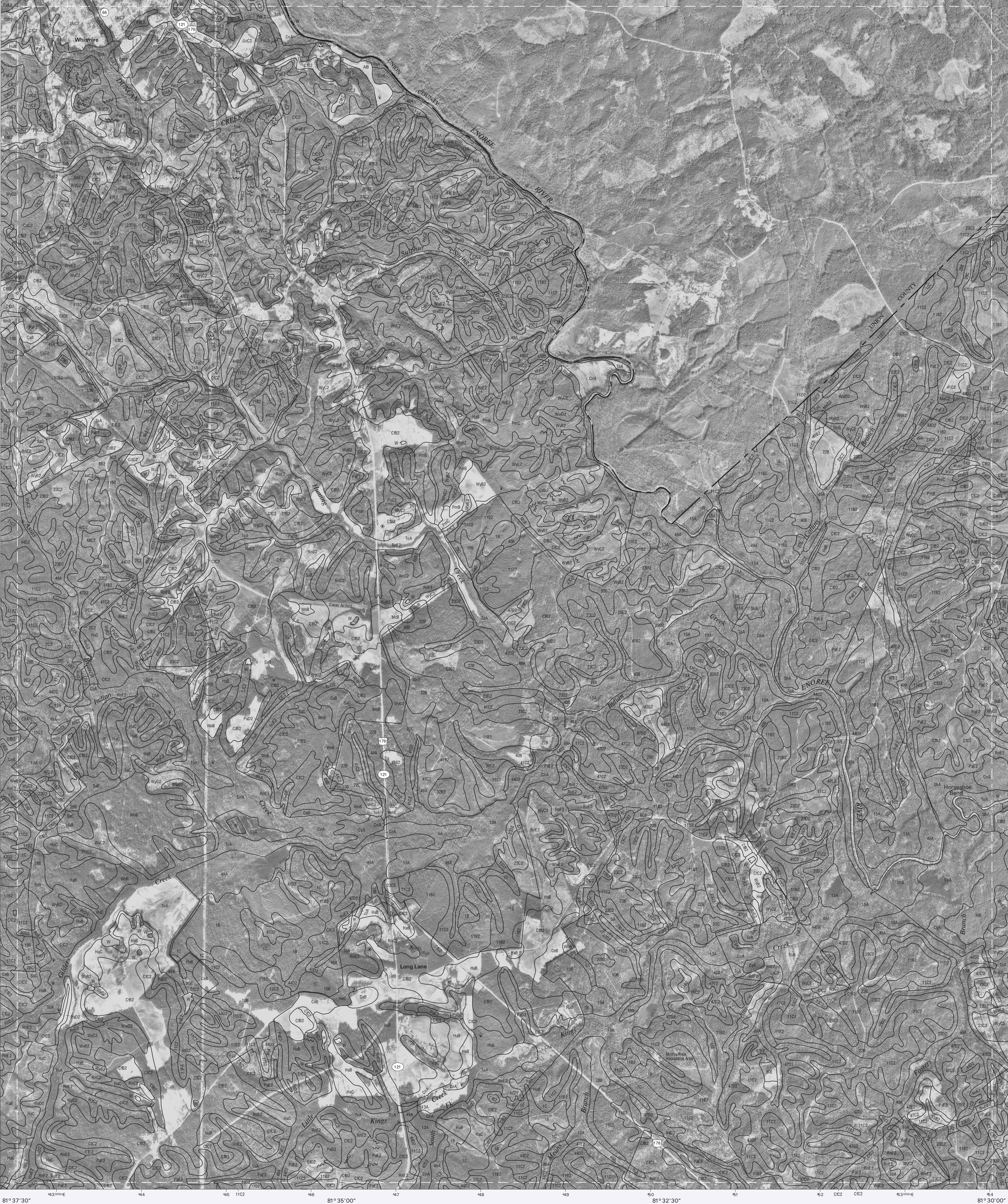
Soil map delineations extending beyond the dashed white quadrangle neoline are for reference only and are included on adjacent map sheets.

Joins sheet 1,
Spartanburg

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NEWBERRY COUNTY, SOUTH CAROLINA
WHITMIRE SOUTH QUADRANGLE
SHEET NUMBER 5 OF 20

Joins sheet 2, Whitmire North



Joins sheet 4, Newberry NW

Joins sheet 6, Blair

Joins sheet 9,
Newberry West

Joins sheet 11,
Fairfax

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

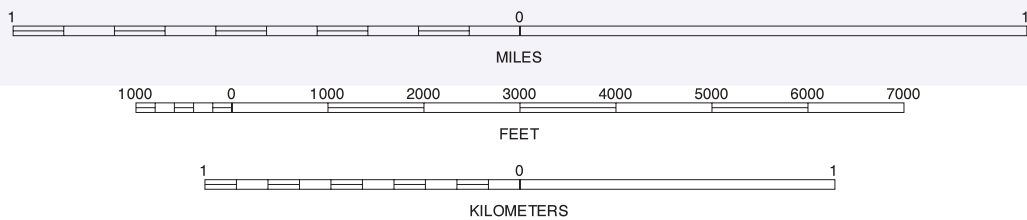
North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000



1	2	3	4	5	6	7	8	9	10	11
1 SEDALIA	2 WHITMIRE NORTH	3 BLAIR	4 NEWBERRY NW	5 BLAIR	6 NEWBERRY WEST	7 NEWBERRY EAST	8 POMARIA	9	10	11

INDEX TO ADJOINING 7.5 MAPS

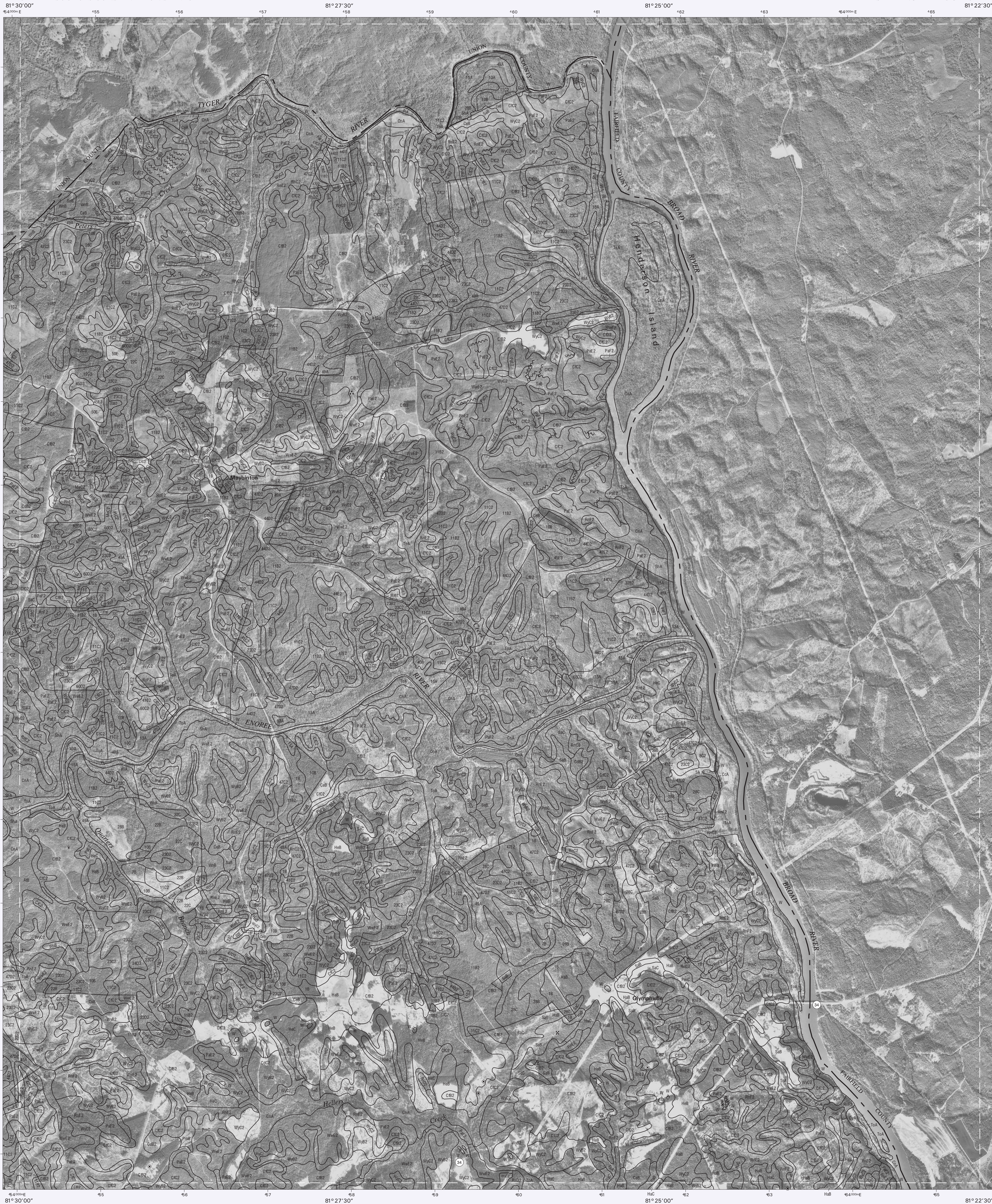
WHITMIRE SOUTH, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 5 OF 20

Soil map delineations extending beyond the dashed white quadrangle neatine are for reference only and are included on adjacent map sheets.

Joins sheet 2
Whitmore North

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NEWBERRY COUNTY, SOUTH CAROLINA
BLAIR QUADRANGLE
SHEET NUMBER 6 OF 20



Joins sheet 5, Whitmore South

Joins sheet 10,
Newberry East

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

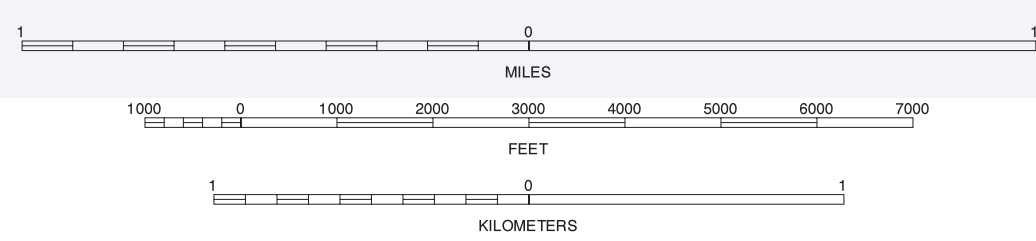
North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000



2			2	WHITMIRE NORTH
5			5	WHITMIRE SOUTH
10	11	12	10	NEWBERRY EAST
			12	JENKINSVILLE

INDEX TO ADJOINING 7.5 MAPS

BLAIR, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 6 OF 20

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 12,
Jenksville



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

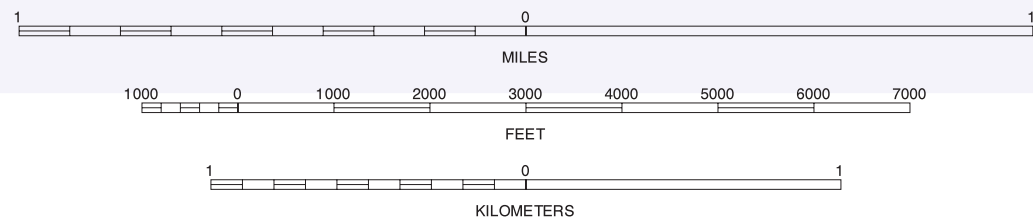
NORTH



QUADRANGLE LOCATION

Joins sheet 13, Dyson

SCALE 1:24000



		3
	8	13 DYSON
13	14	14 CHAPPELLS

INDEX TO ADJOINING 7.5 MAPS

CROSS HILL, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 7 OF 20

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.



Joins sheet 7, Cross Hill

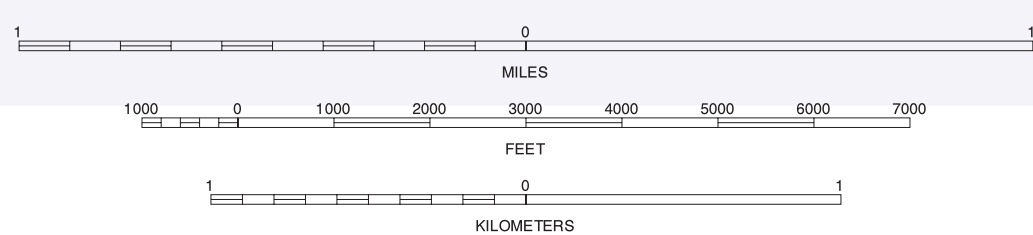
Joins sheet 9, Newberry West

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks. Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION



SCALE 1:24000

3	4	JOANNA
7	9	NEWBERRY NW
		NEWBERRY WEST
		DYSON
13	14	CHAPPELLS
		SILVERSTREET

INDEX TO ADJOINING 7.5 MAPS

BUSH RIVER, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 8 OF 20

Soil map delineations extending beyond the dashed white quadrangle neoline are for reference only and are included on adjacent map sheets.

Joins sheet 13,
Dillon

Joins sheet 15,
Silverstreet

Joins sheet 3,
Joanna

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NEWBERRY COUNTY, SOUTH CAROLINA
NEWBERRY WEST QUADRANGLE
SHEET NUMBER 9 OF 20

Joins sheet 5,
Whitmore South

Joins sheet 4, Newberry NW



Joins sheet 6, Bush River

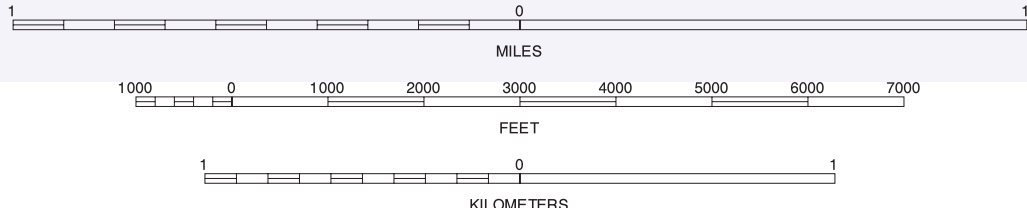
Joins sheet 10, Newberry East

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks. Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION



SCALE 1:24000

3	4	5	3 JOANNA
			4 NEWBERRY NW
			5 WHITMORE SOUTH
			8 BUSH RIVER
			10 NEWBERRY EAST
8		10	14 CHAPPELLS
			15 SILVERSTREET
14	15	16	16 PROSPERITY

INDEX TO ADJOINING 7.5 MAPS

NEWBERRY WEST, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 9 OF 20

Soil map delineations extending beyond the dashed white quadrangle nealtine are for reference only and are included on adjacent map sheets.

Joins sheet 14,
Chapells

Joins sheet 16,
Prosperity

Joins sheet 8,
Newberry NW

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NEWBERRY COUNTY, SOUTH CAROLINA
NEWBERRY EAST QUADRANGLE
SHEET NUMBER 10 OF 20

Joins sheet 6,
Union



Joins sheet 9, Newberry West

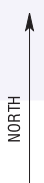
Joins sheet 11, Pomaria

Joins sheet 15,
Silverstreet

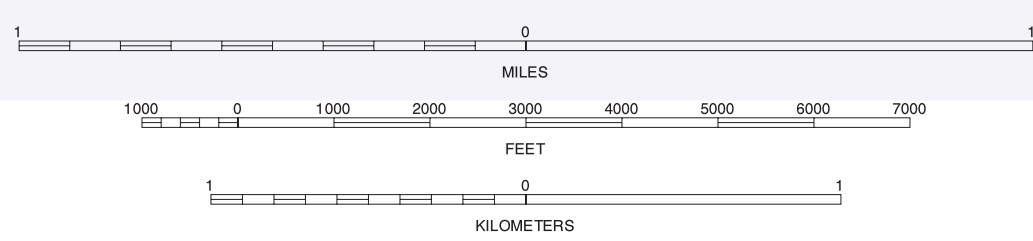
Joins sheet 12,
Little Mountain

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION



Joins sheet 16, Prosperity

SCALE 1:24000

4	5	6
9	10	11
15	16	17

INDEX TO ADJOINING 7.5 MAPS

NEWBERRY EAST, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 10 OF 20

Soil map delineations extending beyond the dashed white quadrangle neoline are for reference only and are included on adjacent map sheets.

- 4 NEWBERRY NW
- 5 WHITMIRE SOUTH
- 6 BLAIR
- 9 NEWBERRY WEST
- 11 POMARIA
- 15 SILVERSTREET
- 16 PROSPERITY
- 17 LITTLE MOUNTAIN

Joins sheet 5,
Wilmington South

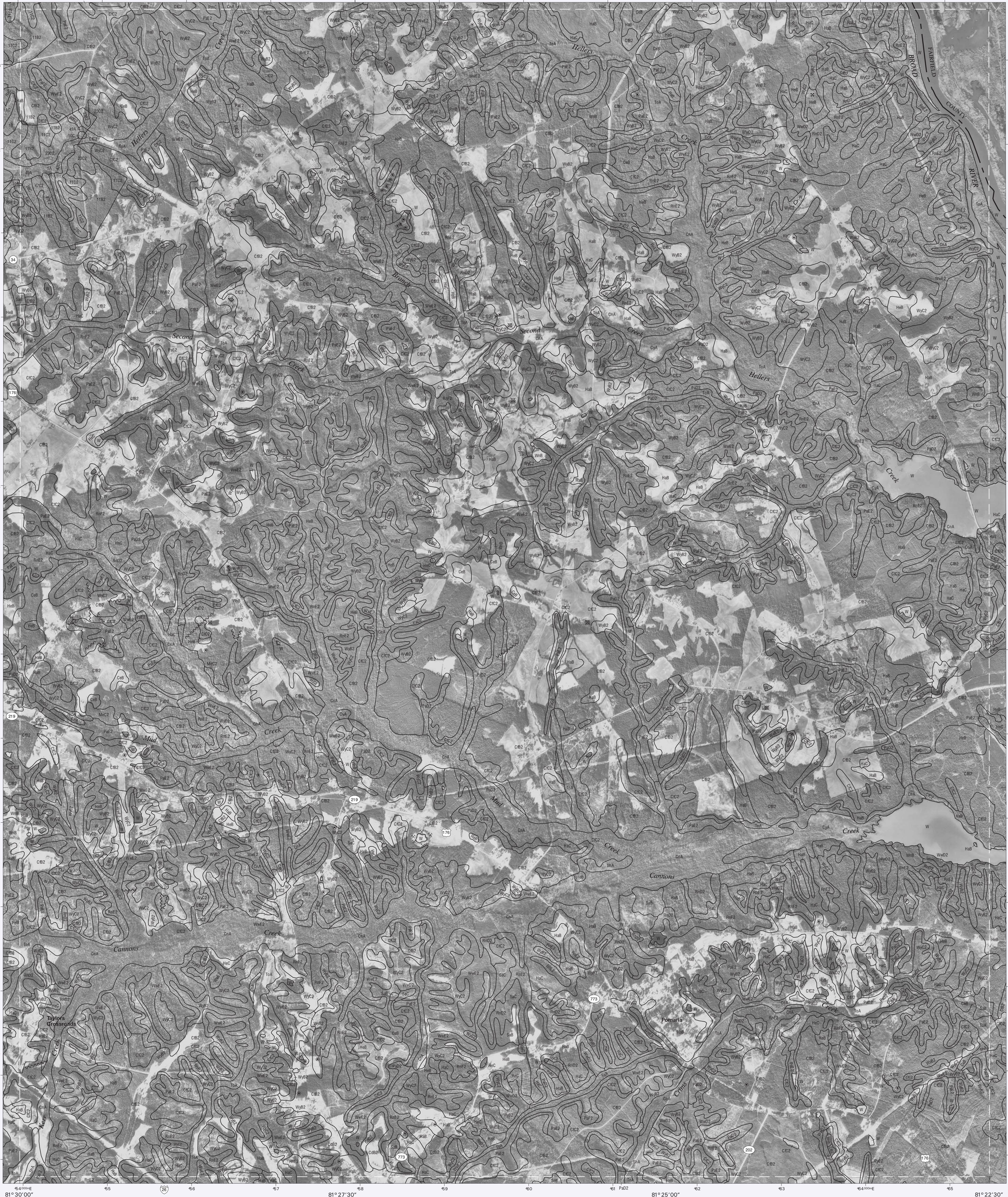
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NEWBERRY COUNTY, SOUTH CAROLINA
POMARIA QUADRANGLE
SHEET NUMBER 11 OF 20

Joins sheet 6, Blair

Joins sheet 10, Newberry East

Joins sheet 12, Jenkinsville



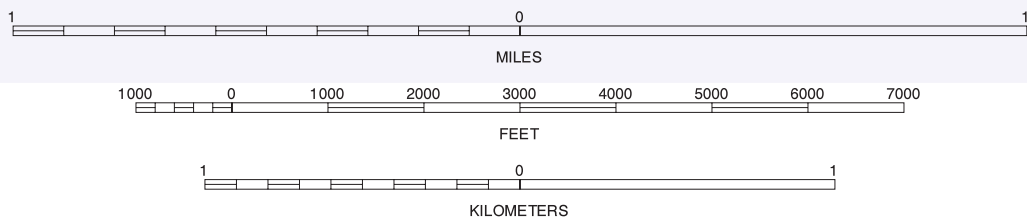
Joins sheet 16,
Prosperity

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks. Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION



SCALE 1:24000

5	6	5 WHITMIRE SOUTH 6 BLAIR
10	12	10 NEWBERRY EAST 12 JENKINSVILLE 16 PROSPERITY 17 LITTLE MOUNTAIN 18 CHAPIN
16	17	

INDEX TO ADJOINING 7.5 MAPS

POMARIA, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 11 OF 20

Soil map delineations extending beyond the dashed white quadrangle neoline are for reference only and are included on adjacent map sheets.

Joins sheet 18,
Chapin

Joins sheet 6,
Blair

34° 22' 30"

34° 22' 30"

3803

3803

3802

3802

3801

3801

3800m N

3800m N

34° 20' 00"

34° 20' 00"

3798

3798

3797

3797

3796

3796

3795

3795

34° 17' 30"

34° 17' 30"

3794

3794

3793

3793

3792

3792

3791

3791

3790m N

3790m N

34° 15' 00"

34° 15' 00"

81° 22' 30" 81° 20' 00" 81° 17' 30" 81° 15' 00"

Joins sheet 18, Chapin

SCALE 1:24000

0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

1 0 1
KILOMETERS

NORTH



QUADRANGLE LOCATION

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

Joins sheet 17,
Little Mountain

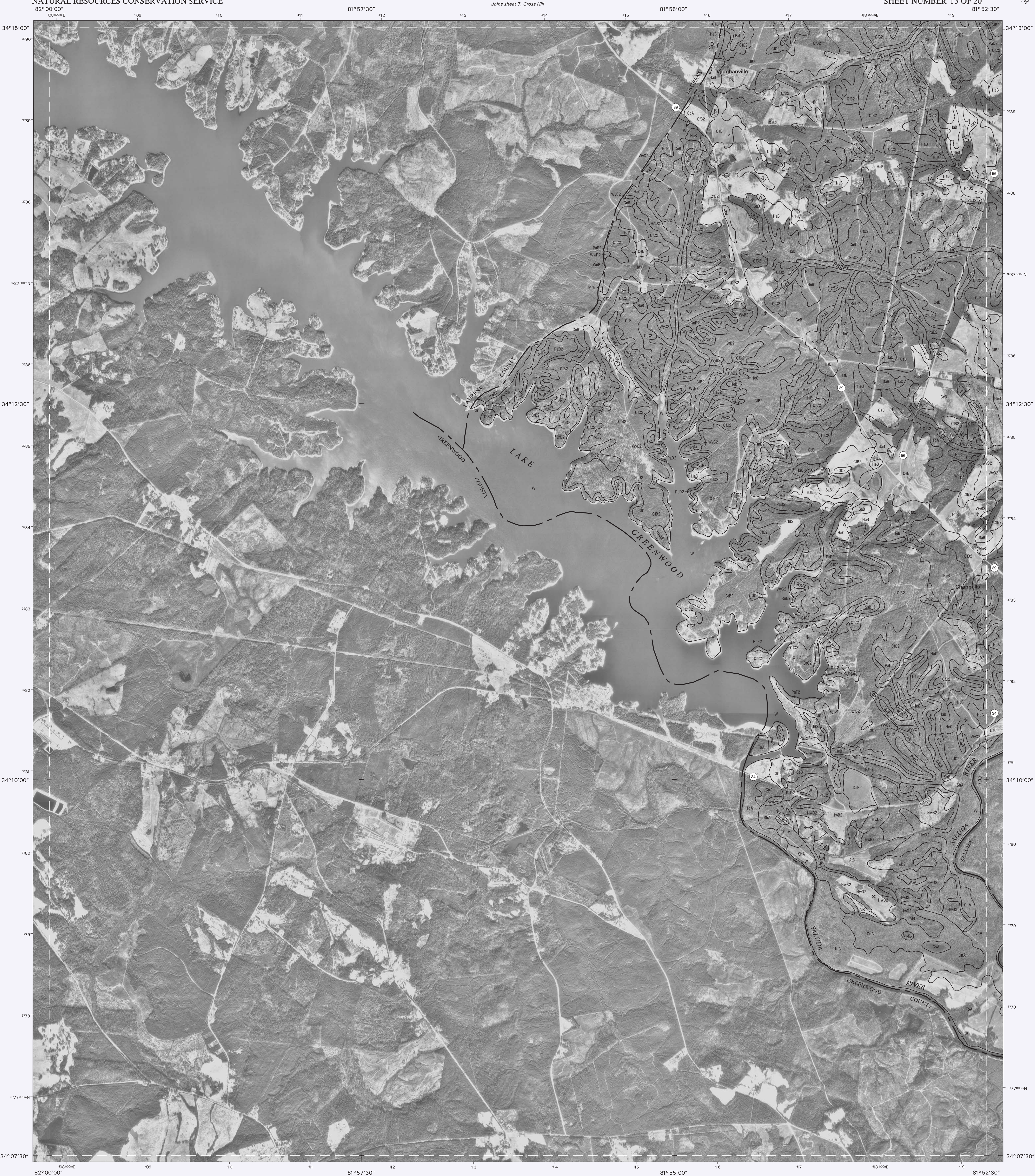
6		6 BLAIR
11		11 POMARIA
17	18	17 LITTLE MOUNTAIN 18 CHAPIN

INDEX TO ADJOINING 7.5 MAPS

JENKINSVILLE, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 12 OF 20

Soil map delineations extending beyond the dashed white quadrangle nealine are for reference only and are included on adjacent map sheets.

Joins sheet 7, Cross Hill



This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

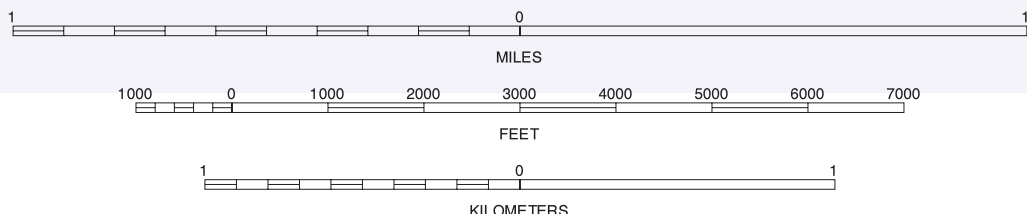
North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000



7	8
14	

7 CROSS HILL
8 BUSH RIVER

14 CHAPPELS

INDEX TO ADJOINING 7.5 MAPS

DYSON, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 13 OF 20

Soil map delineations extending beyond the dashed white quadrangle headline are for reference only and are included on adjacent map sheets.

Joins sheet 7,
Cros Hill

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NEWBERRY COUNTY, SOUTH CAROLINA
CHAPPELLS QUADRANGLE
SHEET NUMBER 14 OF 20

Joins sheet 9,
Newberry West

Joins sheet 8, Bush River



Joins sheet 13, Dyson

Joins sheet 15, Silverstreet

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

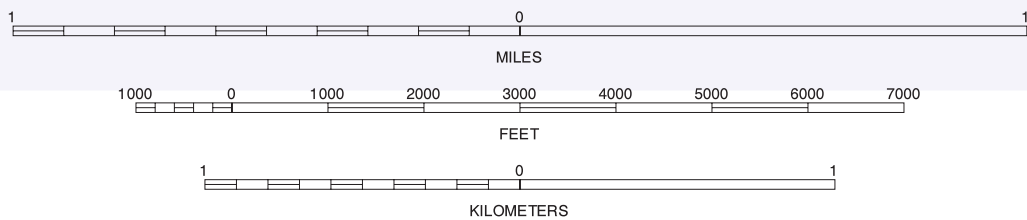
North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000

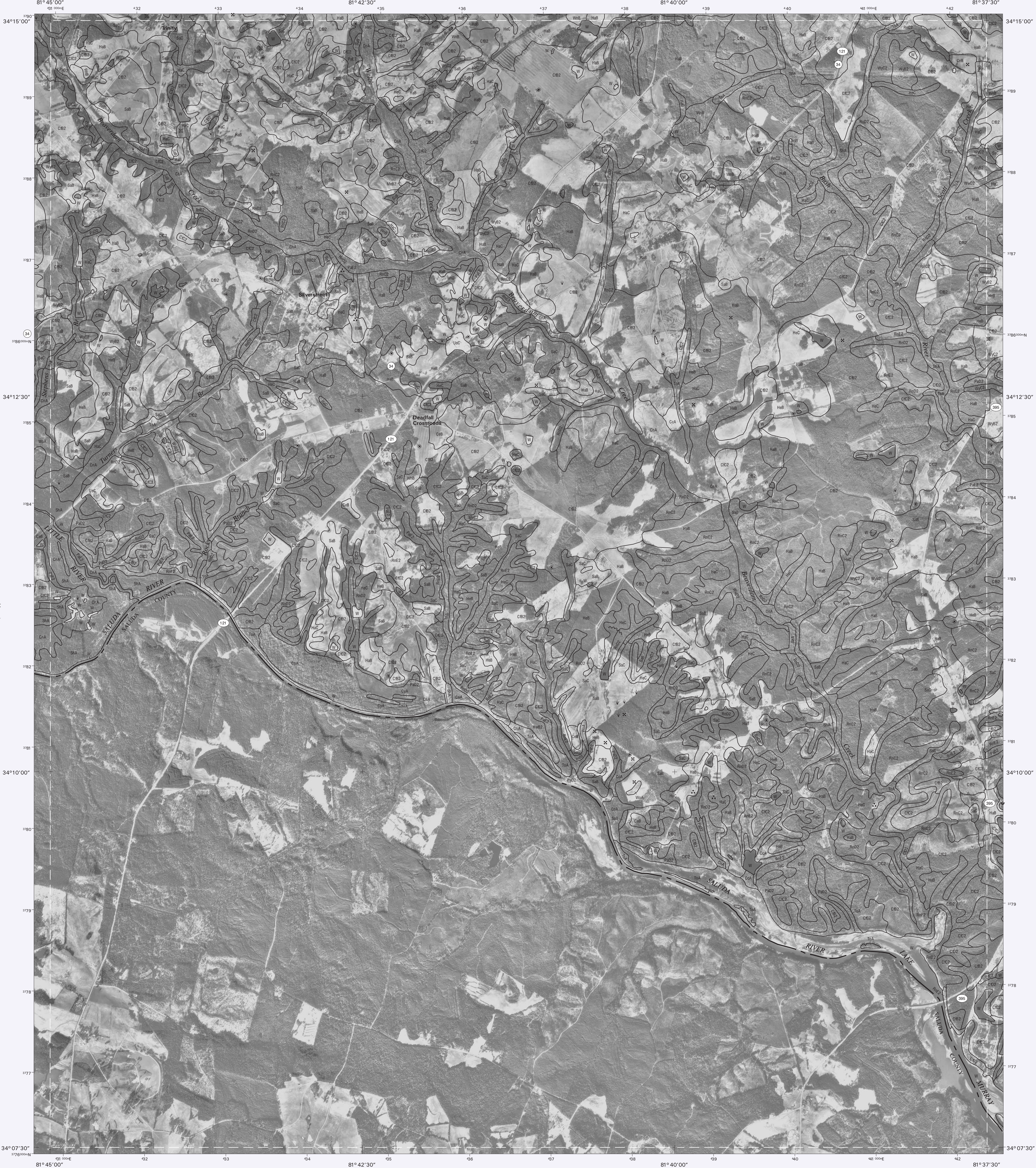


7	8	9
13	14	15

INDEX TO ADJOINING 7.5 MAPS

CHAPPELLS, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 14 OF 20

Soil map delineations extending beyond the dashed white quadrangle headline are for reference only and are included on adjacent map sheets.



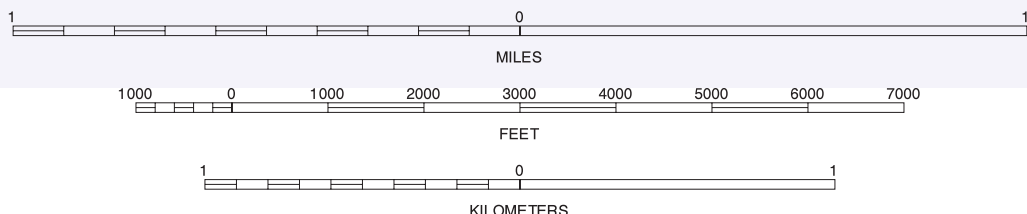
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks. Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION

SCALE 1:24000



8	9	10
14		16
		19

INDEX TO ADJOINING 7.5 MAPS

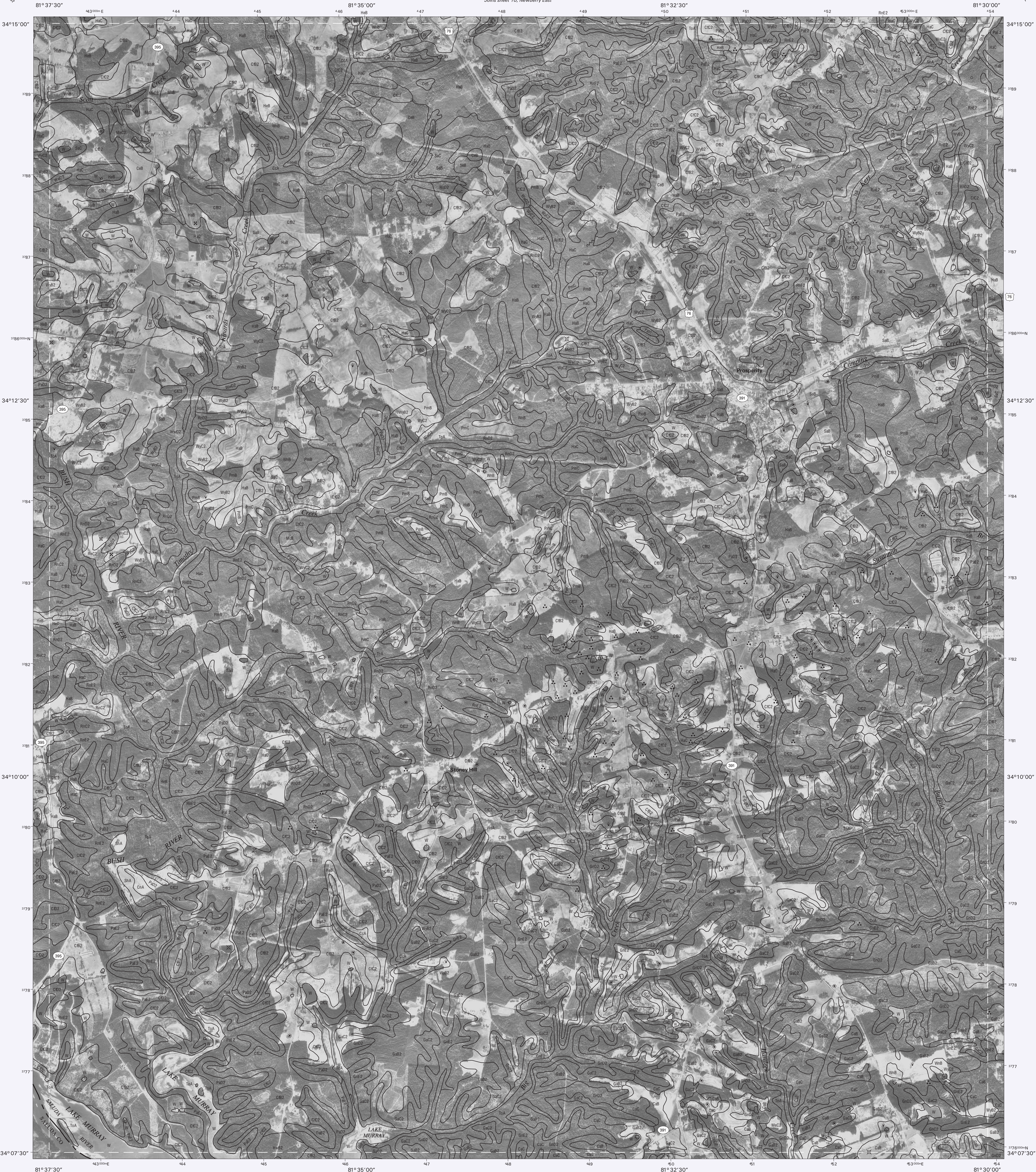
SILVERSTREET, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 15 OF 20

Soil map delineations extending beyond the dashed white quadrangle headline are for reference only and are included on adjacent map sheets.

Joins sheet 9,
Newberry West

Joins sheet 11,
Pomaria

Joins sheet 10, Newberry East



Joins sheet 15, Silverstreet

Joins sheet 17, Little Mountain

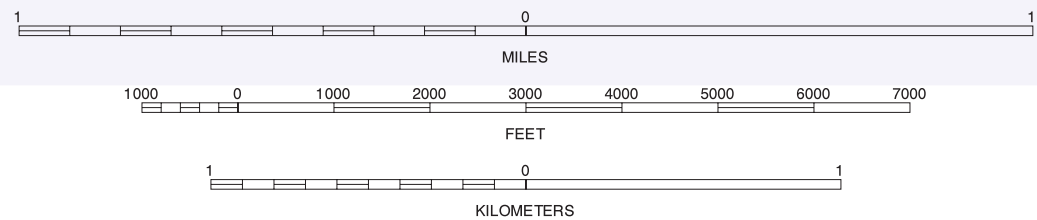
Joins sheet 20,
Lake Murray West

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION



9	10	11
15		17
	19	20

INDEX TO ADJOINING 7.5 MAPS

PROSPERITY, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 16 OF 20

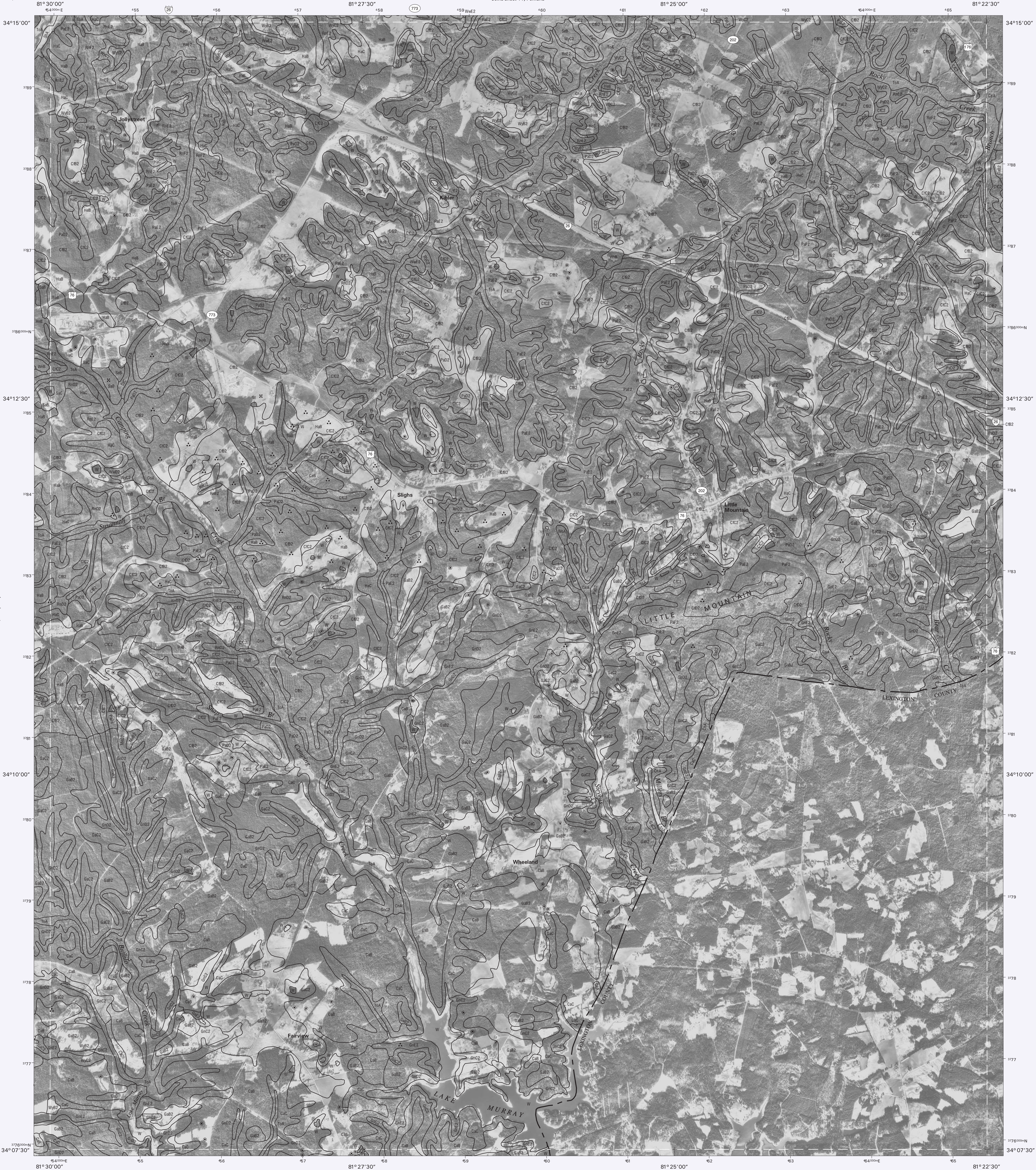
Soil map delineations extending beyond the dashed white quadrangle headline are for reference only and are included on adjacent map sheets.

Joins sheet 10, Newberry East

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NEWBERRY COUNTY, SOUTH CAROLINA
LITTLE MOUNTAIN QUADRANGLE
SHEET NUMBER 17 OF 20

Joins sheet 12, Pomaria



Joins sheet 16, Prosperity

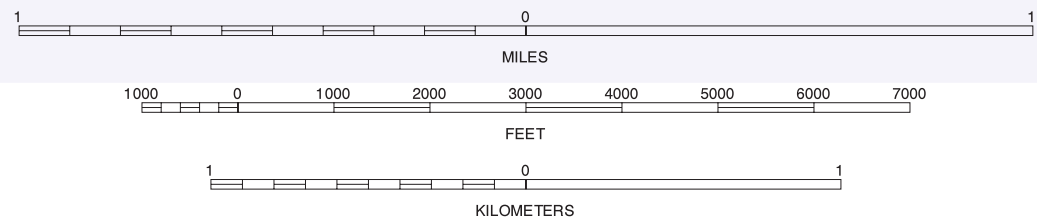
Joins sheet 18, Chapin

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUADRANGLE LOCATION



10	11	12
16	17	18
19	20	

INDEX TO ADJOINING 7.5 MAPS

10 NEWBERRY EAST
11 POMARIA
12 JENKINSVILLE
16 PROSPERITY
18 CHAPIN
19 DELMAR
20 LAKE MURRAY WEST

LITTLE MOUNTAIN, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 17 OF 20

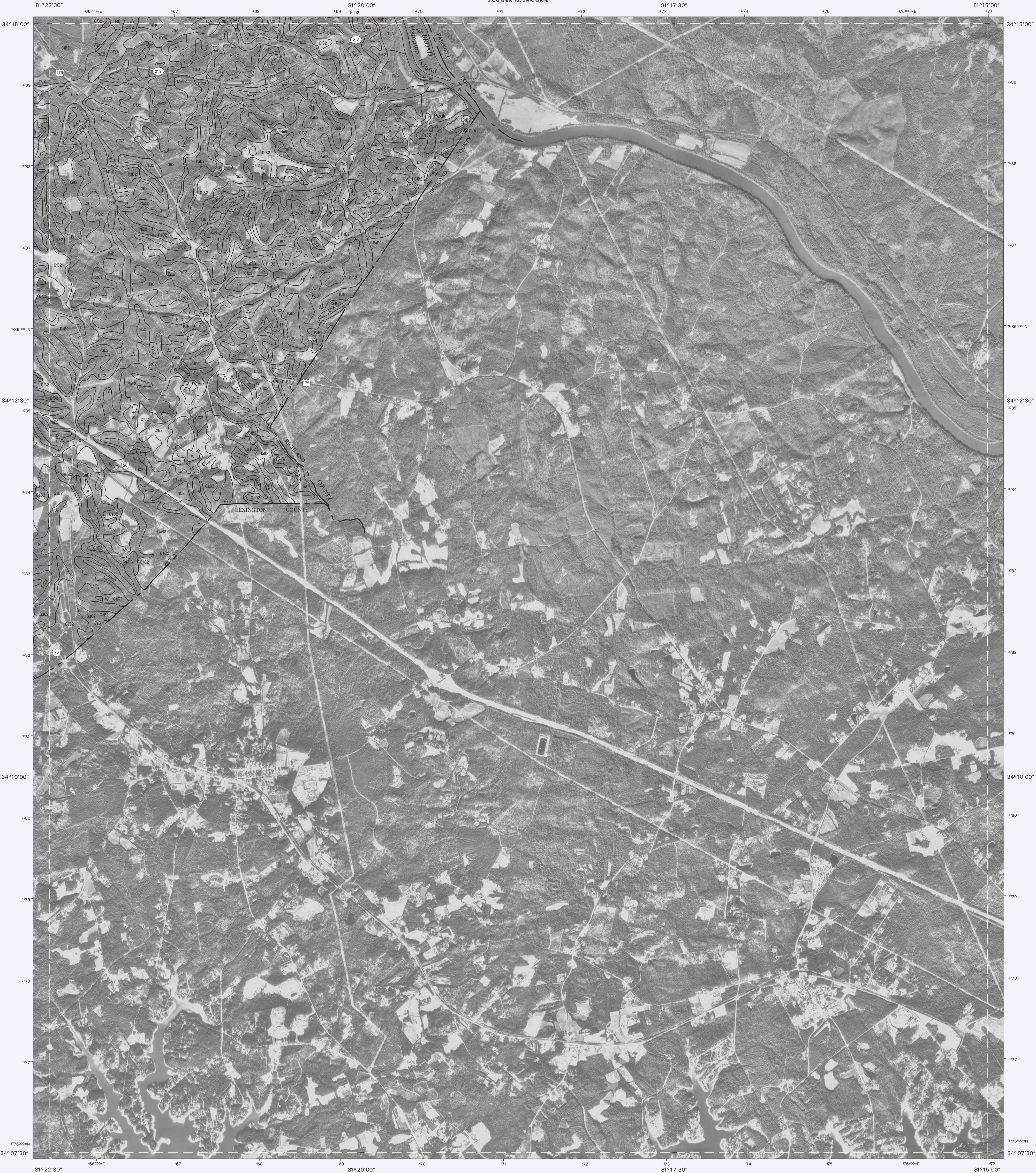
Soil map delineations extending beyond the dashed white quadrangle headline are for reference only and are included on adjacent map sheets.

Join sheet 11,
Pomaria

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
81° 22' 30"

NEWBERRY COUNTY, SOUTH CAROLINA
CHAPIN QUADRANGLE
SHEET NUMBER 18 OF 20
81° 15' 00"

Join sheet 12, Jenkinsville



Join sheet 17, Little Mountain

Join sheet 20,
Lake Murray West

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1994 aerial photography.

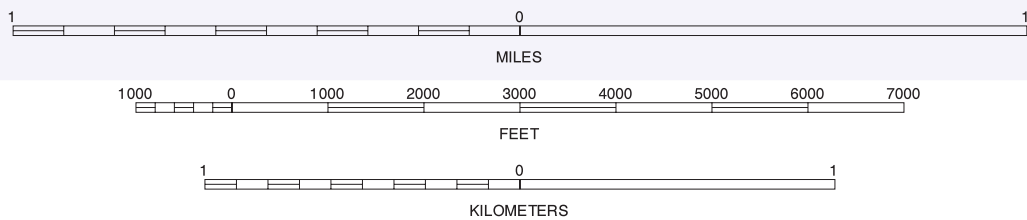
North American Datum of 1983 (NAD83), GRS-80 Spheroid 1000-meter ticks: Universal Transverse Mercator, zone 17. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUADRANGLE LOCATION

SCALE 1:24000



11	12	11 POMARIA 12 JENKINSVILLE
17		17 LITTLE MOUNTAIN
20		20 LAKE MURRAY WEST

INDEX TO ADJOINING 7.5 MAPS

CHAPIN, SOUTH CAROLINA
7.5 MINUTE SERIES
SHEET NUMBER 18 OF 20

Soil map delineations extending beyond the dashed white quadrangle headline are for reference only and are included on adjacent map sheets.



Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.



Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.